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The Journal of

HEALTH *and* PHYSICAL EDUCATION

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AMERICAN PHYSICAL EDUCATION ASSOCIATION

ELMER D. MITCHELL, *Editor* ANN ARBOR, MICHIGAN

Vol. II ✣ DECEMBER, 1931 ✣ No. 10

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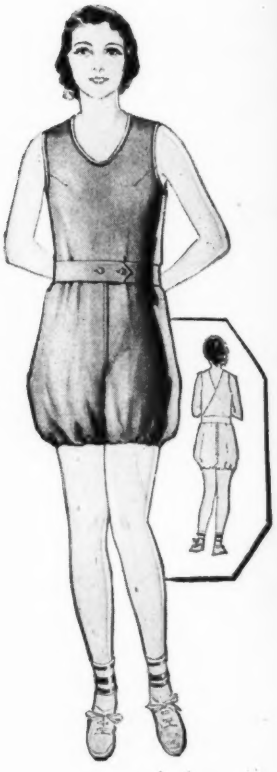

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In This Issue

FUN IN FINLAND. *Thelma Short* 5

THE OUTLOOK FOR COLLEGE ATHLETICS.... 8
William Mather Lewis

THE MEASUREMENT OF SKELETAL WIDTHS AND A CALIPER FOR THE PURPOSE..... 10
W. R. Miles

THE USE OF MODERN METHODS IN HEALTH EDUCATION. *Jeanie M. Pinckney*..... 12

RECREATION FOR ADULTS. *Henry S. Curtis*.. 15

WESTERN CONFERENCE FOOTBALL STRATEGY. 17
G. S. Lowman

EDITORIALS 22

TRAINING IN SWIMMING. *Irwin H. Cohen*.. 24

PHYSICAL EDUCATION IN SPECIAL CLASSES. 27
W. H. Grigson

OUTLINES FOR GIRLS' BASKETBALL. 36
Grace Hartley

THE INTRAMURAL IDEA IN INTER-SCHOOL COMPETITION. *Willard L. Nash*..... 38

IT MAY INTEREST YOU TO KNOW..... 40

PHYSIOLOGY AT THE SERVICE OF PHYSICAL EDUCATION: 12. The Heart Size—Effects of Training. *Arthur H Steinhaus*..... 42

AROUND THE COUNTRY WITH J. E. ROGERS.. 48

EASTERN DISTRICT NEWS NOTES 50

BOOK REVIEWS..... 56

CUMULATIVE AUTHOR SUBJECT INDEX FOR VOLUME II (1931) 58

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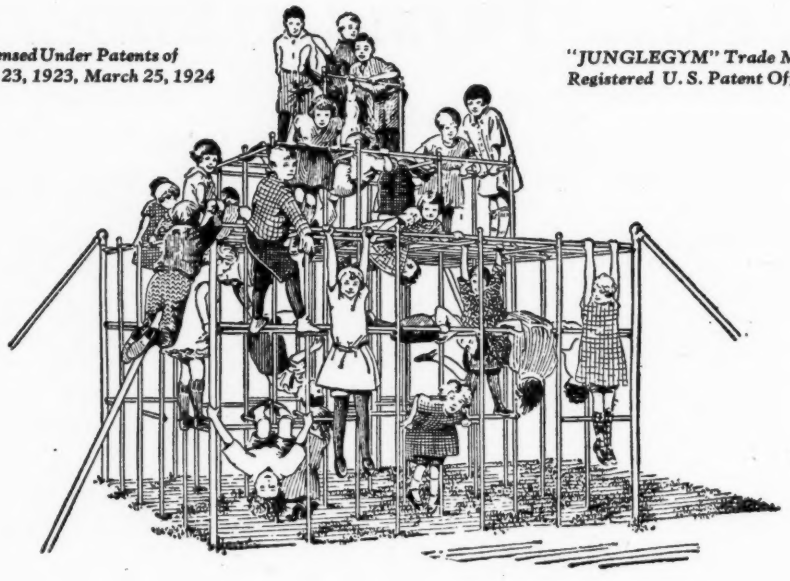

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THE AMERICAN STUDENT HEALTH ASSOCIATION
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EXECUTIVE COMMITTEE OF THE AMERICAN PHYSICAL EDUCATION ASSOCIATION
Hotel Pennsylvania, Wednesday, December 30

SPORTSMANSHIP BROTHERHOOD
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AMERICAN ACADEMY OF PHYSICAL EDUCATION
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Highlights of the Various Sessions

MONDAY, DECEMBER 28

Morning session: Joint meeting of the Society of College Directors and the Society of State Directors. *Theme*: The Upgrading of Professional Preparation in Physical Education. *Speakers*: Dr. Jay B. Nash, New York University; Dr. C. L. Brownell, Teachers College; Dr. F. W. Maroney, Teachers College; Dr. Delbert Oberteuffer, State Supervisor of Ohio; Mr. Arthur V. G. Upton; Mr. James E. Rogers.

Afternoon session: Annual meeting of the Society of College Directors. *Speakers*: Prof. Hugo Bezdek, Pennsylvania State College; Prof. T. N. Metcalf, Iowa State College; Prof. W. R. LaPorte, University of Southern California; Prof. A. I. Prettyman, Hamilton College; Mr. Norman Fradd, Harvard University.

Evening: Banquet of the College Directors with committee reports.

TUESDAY, DECEMBER 29

Morning sessions: Joint meeting of the American Student Health Association and Society of College Directors. *Sectional meetings*: Student Health, Chairman, Dr. Whitelaw R. Morrison, Oberlin College; speakers, Dr. W. R. Redden, Cleanliness Institute, Dr. L. B. Sharp, University of Chicago. Intramural Athletics, Chairman, Harold S. Wood, Ohio State University; theme—Guiding Principles in the Conduct of Intramural Athletics; speakers, Prof. Elmer D. Mitchell, University of Michigan, Dr. Edgar Fauver, Wesleyan University, and others. Administration of Intercollegiate Athletics, Chairman, Prof. W. L. Hughes, Teachers College; Round table discussion. Teacher Training, Chairman, Oliver K. Cornwell, Wittenberg College; theme—Guiding Principles in the Training of Teachers of Physical Education; program to be arranged.

Afternoon session: General assembly. *Speakers*: President Henry M. Wriston, Lawrence College, Dr. R. Tait McKenzie and Dr. E. L. Mercer, University of Pennsylvania, Dr. Joseph E. Raycroft, Princeton University.

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New Recreation Hall

Fun in Finland

By

THELMA SHORT

Assistant Professor of Physical Education

Iowa State Teachers College, Cedar Falls

A WEEK in a Finnish physical education camp! When the prospect of such an adventure presented itself to a group of American young women, there was much speculation as to whether there would even be tents for shelter and whether fish would be the principal food.

During the past summer ten American young women, the writer among them, were on an educational tour, studying the physical education programs in some of the European countries. Finland was included in the itinerary because it has an excellent educational system and a very well organized program of compulsory gymnastics. Then, in spite of the fact that the country has a population of only three and one-half millions, Finland ranked second in the last Olympic Games, surpassed only by the United States. Of course, Paavo Nurmi is the athletic idol of all Finland.

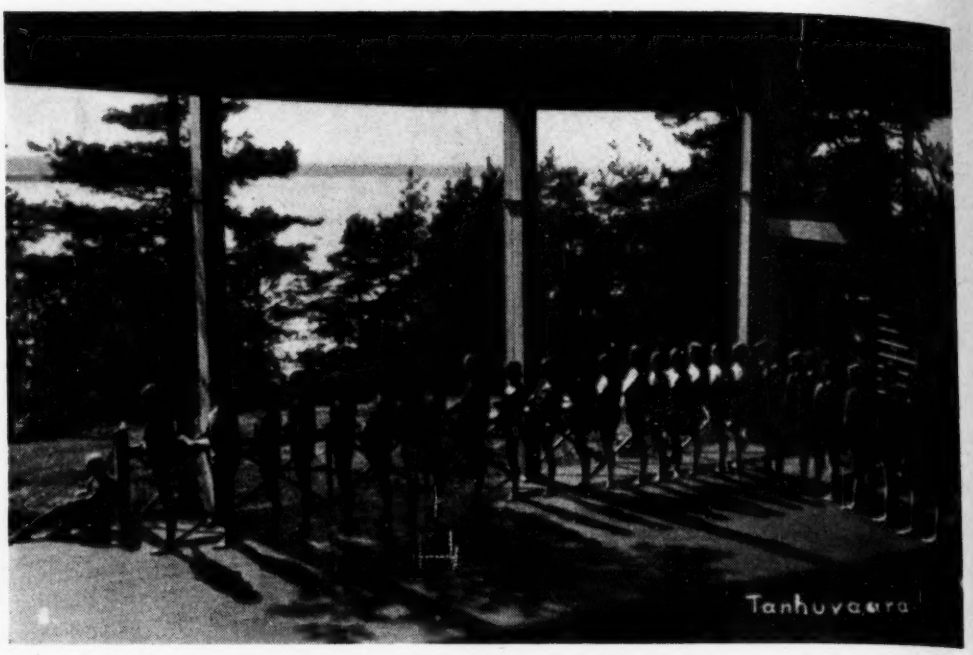
This physical education camp or summer school, called Tanhuvaara, is located two miles from Viipuri, which is about one hundred fifty miles from the Russian border. This camp site is most attractive with its wealth of tall firs, spruces and birches, forming a background for the buildings which overlook the beautiful Bay of Finland. The camp is more modernly equipped than any American camp the writer has had the pleasure of visiting. The buildings are furnished with steam heat (which was turned on when needed!) electric lights, telephone and running water. Four buildings very substantially built comprise the unit of halls. An imposing recreation hall had been completed just before our arrival so the Americans were housed in that building. This hall has one very large room which is used for the dancing classes and camp parties. On the second floor are eight bedrooms opening on to a balcony. Each of these rooms, furnished with two "double decker" beds, a table and stools, accommodates four persons quite comfortably. A second building with a large screened porch houses the dining hall, kitchen and the office of the camp director.

Following a pathway up a rocky bluff, one comes to the "Upper Hall" as it is called. This is a splendid gymnasium, open on three sides and affording a beautiful view over the bay. Stall bars, ropes, a buck and a horse are part of this room's equipment.

Near the water's edge is the Finnish bath house, an institution truly unique. It is the opinion of some that the athletic prowess of Finland may be partially attributable to this mode of bathing. We were told that the Olympic contestants are planning to bring their own bath house to California next year.

This physical education summer school was organized eleven years ago by two Finnish women who were greatly interested in physical education. It is now managed by a board of directors. The camp is self-supporting although the rate for a three weeks' visit amounts to only twenty-five dollars. The campers take turns helping with the dishes and doing the clean-up work. At the time we were guests at Tanhuvaara about fifty young Finnish women were attending the summer school. Most of these young women were physical education teachers but there were some housewives and office girls as well. Later in the season there was to be a three weeks' session devoted to the instruction of one hundred leaders of an organization similar

to our Girl Scouts. In Finland, as in other European countries, many leaders in gymnastic clubs and recreation centers give their time, without remuneration, to teaching classes. In some cases the club or organization pays the expenses of the leader while she is taking a summer course.



Upper Hall—Large gymnasium with three open sides looking out over the gulf

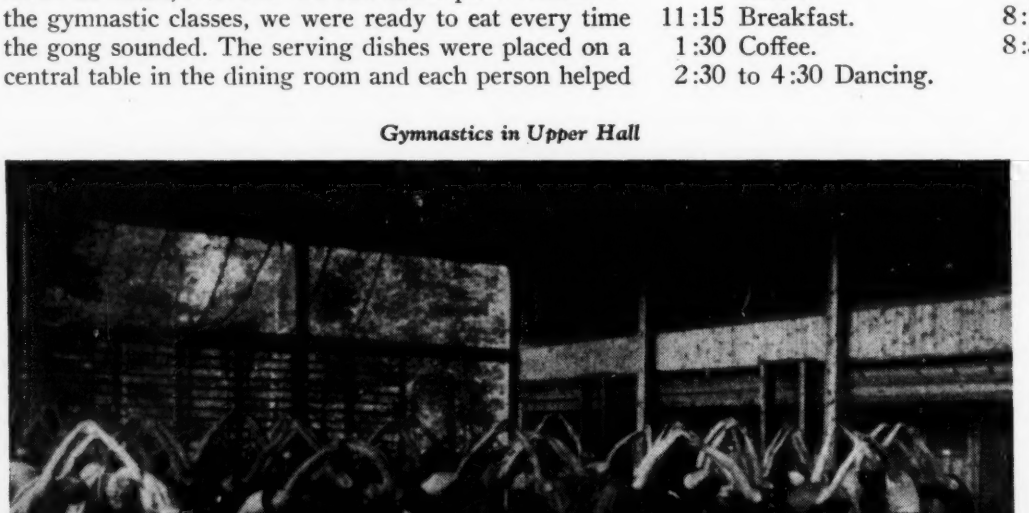
Upon our arrival at Tanhuvaara we were greeted by a chorus of many voices singing folk songs. All of the girls had gathered on the steps of the recreation hall to welcome the Americans, the *first* Americans most of them had ever seen. Then showing true hospitality they immediately invited us to take a Finnish bath. Only actual participation makes one fully appreciate this procedure but suffice it to say that after steaming ourselves as long as we could endure it and being switched at the same time with bunches of birch twigs, and then finally cooling off by a dip in the bay, we knew that never before had we been absolutely clean!

At first glance the day's program seemed to us a series of meals, but after we had taken part in some of the gymnastic classes, we were ready to eat every time the gong sounded. The serving dishes were placed on a central table in the dining room and each person helped herself. Although the diet and order of serving seemed strange to us, the food was always plentiful and well-cooked. We became somewhat accustomed to their bill of fare even though potatoes, hard, dark bread, sour milk and fish were served very frequently.

The camp program was as follows:

8:30 Coffee.
8:55 Flag raising.
9:00 to 11:00 Gymnastics.
11:15 Breakfast.
1:30 Coffee.
2:30 to 4:30 Dancing.
4:30 Swimming.
5:00 Dinner.
6:00 Rhythmics.
8:00 Flag lowering.
8:10 Tea.
8:30 Dictation of the day's exercises and discussion.

Gymnastics in Upper Hall



During the week we were at Tanhuvaara, Miss Maian Pontanin, a Finnish teacher, who now has a dancing studio in Paris, was giving a series of lessons in plastic gymnastics and dancing. Miss Pontanin is a splendid teacher and we regretted that we could not get a better understanding of her principles of movement. Naturally all directions were given in Finnish so we had to wait until the girls started the exercise and then we tried to follow. After several classes we did discov-

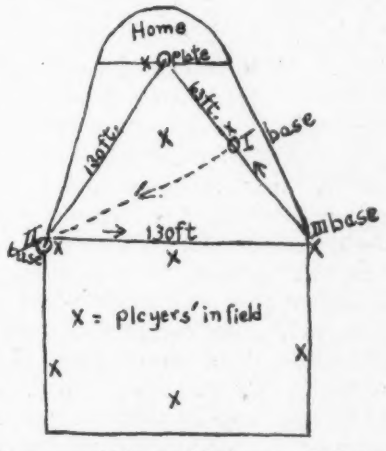
er that yksi, kaksi, kolme, nalja were the equivalent of our one, two, three, four. The exercises seemed quite general in movement and not at all formal in presentation or execution. We found it somewhat easier to follow the instructions in the dancing classes but the endurance of the Finnish women quite surpassed ours.

One night we had a party which was a gala occasion. Eight of the girls, dressed in native costumes, danced two of their folk dances. These dances were so long and strenuous that only people with much vitality and endurance could do them. The American girls had previously been asked to provide a number for the program so we danced "The Arkansas Traveler." This performance seemed to cause a great deal of merriment, especially the "rubber legs." Coffee was served at ten-thirty at which time we had fun singing songs. Neither group could understand the words of the other's songs but this added to the fun. After the sing we all came back to the recreation hall where we danced some folk dances together. The steps were fairly simple but they were repeated so often that we were dizzy and breathless long before the Finnish girls showed any signs of fatigue.

Several evenings we played baseball but as the Finnish game differs from ours in many respects we were never certain when we could run and when we were out.

The circle, a wooden disc a little more than two feet in diameter, is the "plate." The pitcher stands to the left of the plate and tosses the ball into the air. The ball may be thrown any height provided it comes down within the area of the circle. The batter strikes the ball as it drops over the disc. As the ball is smaller than our league ball and the bat longer and slimmer than ours, the timing is not as easy as this description may lead the reader to think. About the only similarity to our game that we could observe was that after three "balls" the batter could take a base. One rule that seemed strange to us was that even though the batter has hit a fair ball, if the hit is not satisfactory to him, he need not run until after two strikes have been called. Aspiring Babe Ruths would be discouraged over the rule which calls a ball foul if it is hit beyond the extreme end boundary line. Several times we were chagrined to be called out after a fair hit until the regulation concerning the dropping of the bat was explained. The rule is that the bat must be left in the home territory and if it even touches the line in front of the plate, the batter is out.

The Finns evidently have appreciated for many years the therapeutic value of sunlight, for sun bathing seems to be as much a part of their lives as steam bathing. The winters are so long and dark that in summer the Finnish people take every opportunity to expose their bodies to the ultra violet rays.



Through conversation with some of the young women who taught physical education we learned that modified Swedish gymnastics are taught in all the grades. Singing games and rhythmics are included in the program. Finland is poor financially, so there is very little

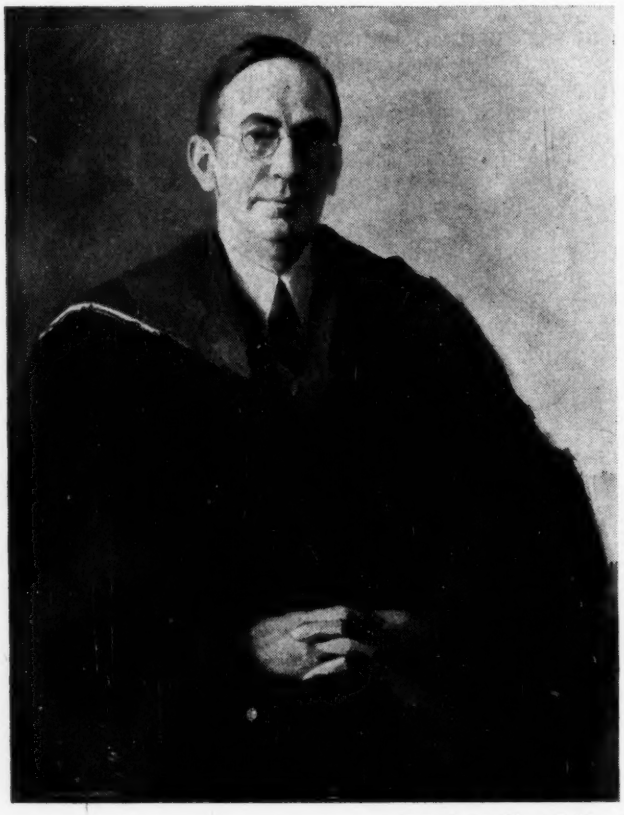
(Continued on page 39)

The Outlook for College Athletics

By

WILLIAM MATHER LEWIS

President of Lafayette College



—Portrait by Hans Schlereth

THE College administrator is very much like the manufacturer*. He is at the head of an organization representing millions of invested capital, with a body of skilled workers whose mission is to take certain raw material and develop it into a product for which there is a demand. Like the manufacturer, he finds that the demand is not constant; that the goods which were popular yesterday are a drug on the market today. Few industrial organizations which stand still succeed. They either go forward to prosperity or backward into the hands of the receiver. And so with the colleges—they either go forward to increased usefulness or backward to ineffectiveness. Thus, as someone has pointed out, no man should send his son to his Alma Mater without carefully investigating what it is doing today. If it is just the same as when the father was there, it is no place for his son. The type of educated man for whom there is a demand in 1931 is vastly different from the one who found his place in 1900. And I do not refer to vocational demands any more than I do to cultural requirements. In the vocational fields, the changed demand is particularly impressive. The Colonial Colleges were founded to produce trained professional men, particularly, clergymen. Then came the industrial revolution and the colleges were called upon to expand with tremendous rapidity in order that the demand for scientific men might be filled. The growth of the great cities in America, rapidity of transportation, ease of communication, and a thousand other factors have caused a demand for a different cultural education than was necessary fifty years ago.

Everywhere we see progressive colleges and universities changing front to meet the needs of a new day. Only a little while ago, Yale broke with her tradition relative to the classics. We hear of experimental colleges springing up, the development of honors courses, of systems, of psychological tests, all aimed at the adjustment of the student to the civilization in which he is to play a part.

Thus the college administrator and his colleagues, if they are to measure up to the situation, must study the evolution of education in all its various phases; observing critically the success of past efforts, applying themselves with intelligence to the present task, and anticipating, with all the wisdom they can summon, the possibilities which the future holds.

And this method of coping with the situation applies to the Department of Athletics in a given institution as much as to any other department. Nowhere else is it more important to decipher the handwriting on the wall. In scrutinizing the past in this field, one does not have to look back as far as in some others. Intercollegiate athletics in American colleges and universities is a thing of comparatively recent growth. Here in New York, in 1873, the first conference on the subject of football was held, the participants being representatives of Yale, Princeton, Columbia and Rutgers. And at that time the first rules governing intercollegiate football games were worked out. That was 58 years ago and up to that time some of the colleges in the conference had been in existence 150 years. During that century and a half, sport had gained ground slowly. The college was essentially a place of intellectual activity. The necessary physical exercise was gained by chopping wood for one's stove, walking many miles to the college, or earning one's living by physical toil. Then came informal and simple games of baseball and football, tug-of-war contests and the like, among various changing groups in the same college. No student or professor in that century and a half foresaw intercollegiate athletics as a great interest and a great problem.

Even after the launching of intercollegiate sports in

* Address delivered at the annual dinner of the Sportsmanship Brotherhood.

the 70's, the system remained for a long time very simple, arousing no great public interest. There are not a few here tonight who have been observers of the entire period of the great development in our intercollegiate athletic program; the constantly more specialized coaching and training methods; the increasing emphasis given by the press to college athletics and athletes; the increasing interest of the public; the erection of great stadia; the increasingly vigorous debates upon the subject of over-emphasis. It is not for me to enter this debate tonight. Certain abuses have crept into our athletic system as they creep into every human endeavor. These, however, are receiving increasingly keen attention as time goes on. I believe that the ethical standards of college sport are becoming constantly better, that dirty play and professionalism and double dealing are less and less evident, that good sportsmanship is gaining ground.

The questions that interest us in the administration of colleges, in connection with athletics as in every other activity, are these: Will athletics continue along the same line in the future as in the past, and if not, what changes are necessary to make them of real educational value in the face of future social and economic needs in America? It is my belief that we have seen intercollegiate athletics reach their zenith as far as public and alumni patronage of games is concerned. There were many reports of decreased football receipts from colleges and universities last fall. The general explanation of this was the financial depression. I do not believe this explains the situation fully.

Only a few years ago, football held the center of the athletic stage in October and November. The professional baseball season was over. There was not much to do Saturday after work. Sport lovers turned to the football field. And then there appeared a sport which for a long time made little popular headway and which furnished humorous writers endless material; the game of golf. Today it is not the subject for humorous comment; it is serious business for millions of people. The most amazing development in the physical recreation program in this country has been that in golf. Country clubs crowd each other about the country side. Few of even our smaller cities do not have municipal golf courses. The results—people are playing games Saturday afternoon themselves rather than taking their athletics vicariously. Nor is participation limited to golf; other sports are being more and more participated in.

This general desire to play games by our people is going to affect the football set-up, and so, until the extent is known, college and university administrators will be wise to proceed slowly with the building of large stadia. In the meanwhile, more of the available money might well be put into college golf courses, tennis courts, swimming pools, squash courts, and the like.

All this is not to say that football is not a fine sport. It is *just that* and should be continued in our colleges. But it is the part of wisdom to anticipate its future and to prepare intelligently for it.

Another element that must not be neglected in our appraisal of the future of intercollegiate athletics is that of student activity. Like the general public, and the alumni, the students are not now satisfied to be in the role of spectators. They desire participation in games. This attitude explains that lack of so-called College Spirit which so depresses certain alumni. Said one such to me, "Something is wrong. When I was in college every man marched down to the field on Thursday before the big game to give the team a great send-off. Now it is impossible to get a quarter of them out." He had not observed that on that afternoon there were several intramural football games on the practice fields; crowded tennis courts; soccer practice; cross country and a dozen other forms of organized games claiming the attention of that other three-fourths who, without being disloyal, wished to devote their time to the enjoyment of their own competition and recreation.

In modern education we set great store by systems of achievement grading, and of tests to determine positive rating. Why not evolve a system by which the relative athletic rating of colleges and universities will not depend upon games won and lost so much as upon the total number of participants in those games? If intercollegiate competition is of educational value, as I believe it is, then the more participants a college has the more successful is its athletic policy. To explain what I mean—during the present academic year at Lafayette College our athletic teams have participated in 123 dual games and have won 55 of them. This is by no means a brilliant record. The fact, however, that 288 students or 29 per cent of our student body has represented the college in these contests, is, I believe, a cause of some satisfaction. And if by means of a system of second and third teams, or of football teams of special weights meeting similar teams from other colleges, the number of participants would be considerably increased, the results would be correspondingly more gratifying. Again it means more to have had 300 men playing football last fall as we did than to have won all our intercollegiate games—and to have 22 baseball teams playing full schedules this spring than to have several varsity men batting 400. I can get up little enthusiasm over the so-called three-letter man. Unless he is particularly brilliant, the question naturally arises as to how much else he is getting out of college. To encourage three one-letter men is far better policy than to glorify one three-letter man.

Another matter that needs definition in the light of future needs is that of major and minor sports. As a spectator, and a frequent one, at football and baseball games, I am willing to admit they are major sports; but as a duffer on the golf course, I wish that golf had been a major sport at my college and that I had been compelled to major in it. After all if college is an institution worthy to survive, it cannot be an end in itself but a means to an end, and the subjects in its curriculum must be simply a means to an end—the end being an abundant life. Football is largely an end in itself. In other words, not one out of 1000 men play it after leaving college. It teaches participants fine

(Continued on page 43)

The Measurement of Skeletal Widths and a Caliper for the Purpose

By

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A thousand years from now scientific men and women doubtless will still be concerning themselves with the development of the human body, and its changes from birth to death. But very probably they will be making some new or different measurements upon it than those now commonly in use. Human beings typically measure and think of growth, whether of wheat, corn, trees, or children, in terms of height. The basic reason for this pronounced emphasis on height as denoting size may be traced back to the psychology of vision. The primary observation point from which we survey inanimate objects or living creatures is from the level of our eyes. If an object does not reach from the ground to the eye level, it is relatively short. If it reaches above our eyes, it is relatively tall. In one case we see over; in the other, vision is restricted and we are over-topped. Apparently these circumstances of visual perception tend to fix the vertical as the primary axis of estimate, and it comes about that, in the majority of human concerns, interest in height gets the chief emphasis.

It also happens, for the human body, that height is easier to take than almost any other physical measurement. With a pair of meter sticks, a triangle, and a short plumb line, not only the total stature, but also the sitting height, the heights to knee, pubic arch, sternal notch, and many other related length measurements, may all be made with a good degree of precision.[1] The accuracy of the stature measure has been so amply demonstrated that its importance seems self-evident. Painters, anatomists, and anthropologists have tended to interpret the other measurements of the body in terms of their percentages of height, and in this manner they have worked out the so-called normal body proportions.

With the coming of life insurance statistics and medical interest in certain nutritional diseases, a great amount of attention has been focused on the problem of normal body weight. Considerable effort has been directed toward working out normal weight tables to guide insurance and medical examiners and to aid those in charge of the nutrition of children and adults. It was of course in the nature of things that these tables should make height the basic measure for predicting normality of weight. However, it was perfectly obvious that the factors of sex and age had to be given consideration. Two sets of tables, one for males and one for females, were developed, and each of these contained a series of scales for the different ages. Age was of course found very important in the early years, and not negligible in the range from forty to sixty years. But even tables made up with these provisions failed to fit many human beings, and the next attempt at improvement was to recognize the different types of body build—slender, medium, thick-set.[2]

Of course the width factors of the body have not been wholly neglected. But physical anthropologists, physicians, gymnasium directors, and others interested in body measurements have taken account of the width mostly in terms of circumference or girth measurements. It is quite obvious that girth is not a logical basis for predicting normality of body weight. The mass or weight of the body tends to be a cube measure —height x width x thickness. A circumference or girth, since it is not a rectilinear measure, corresponds more closely to a cross-sectional area than it does to a diameter, and is naturally going to bear a close relationship to the weight of the organism. The typical correlation between height and weight for American soldiers is .52±.002; whereas that between weight and chest circumference for the same group is .69±.001.[3] It is not logical to put girth into the weight prediction tables, because a man with a great girth would of course make for himself a very high "normal" standard, whereas the slender, thin individual, according to his measured girth, should have a slight weight. Hence both robust and slender people would be largely verifying themselves in their present state of nutrition.

The width measurements of the bony skeleton are of course rectilinear measurements and correspond to stature and the various height or length measurements. If these diameters are taken against bony resistance rather than including within themselves a large fraction for thickness of muscle and fat, they will approach in accuracy the length measurements commonly taken. Furthermore, they will reflect the type of skeleton (wide, medium, or narrow) which is being considered, and will thus contribute a prediction basis not necessarily included in height and which is now applied in the rather slipshod manner by judging the patient as thick-set, medium, or slender.

Some time ago I made measurements on about 550

[1] W. R. Miles and H. F. Root, "A Simplified and Trustworthy Means of Measuring Stature." Boston Med. and Surg. Jour., 1925, 192, 111-112.

[2] C. B. Davenport, "Body-Build and its Inheritance." Carnegie Inst. Wash. Pub. No. 329, 1923, Washington, D. C. Professor Davenport makes five classes: very slender, slender, medium, fleshy, and very fleshy. On his page 27, Fig. 7, there is a diagram which gives the ranges for the classes distinguished. This has been plotted in logarithmic fashion for the reason that the range of weight classes above the mean is three times as great as below it.

[3] C. B. Davenport and A. G. Love, Army Anthropology, Washington, D. C., Govt. Printing Office, 1921, See p. 269.

young American men entering Stanford University. The average age was about twenty years, but the range was from fifteen to forty-six. I took five measures: the usual net body weight, height, sitting height measured from the floor, hip diameter, and shoulder diameter. The hip diameter was the maximal distance between the outside iliac crests against bony resistance. The shoulder diameter was the measurement of the distance between acromion processes. The results of this series have been published, but it is worth while to mention the chief findings.[4] The Pearson correlation between height and weight was .54±.03; between hip width and weight, .54±.03; between shoulders and weight, .45±.03. Thus it is seen for this sample of data that the hip width of the skeleton bears as close a relationship to the body weight as does the height. The shoulder width is not as close as the height. But when we consider the correlation between height and shoulders, and height and hips, we find that the former is .33, and the latter .49. Therefore, it is justifiable to presume that these width measurements are contributing something that is not fully represented by the stature measurement. It is reasonable to believe that a prediction value for normality of weight which took into account stature and hip width, and perhaps also shoulder width, would form a more satisfactory basis on which to diagnose underweight or overweight than is now found in height alone.

In measuring the body widths it is desirable to use a caliper which will permit the securing of these dimensions against bony resistance without discomfort to the subject who is being measured. The larger calipers commonly used on the trunk by physical anthropologists have straight arms. While for this reason they are somewhat easier to apply, it is obvious that a layer of flesh is included under each caliper arm, thus considerably modifying such a measurement on the hip diameter. Physicians and obstetricians interested in measuring the bony pelvis have commonly found it necessary to discard the straight-arm caliper, and to use in its stead a caliper with curved arms tipped with small round points which can be pressed in near the bone. For some reason the calipers ordinarily used by physicians are not well made or very adequate. Designers have apparently striven for the smallest instrument that could be used for the purpose. The caliper arms have been made rather short, and the scales very condensed. These instruments are not comparable to the excellence of the Bertillon curved-arm head caliper for skull measurements.

Without desiring to multiply instruments it seemed practically necessary to arrange for a caliper that was of suitable form and sufficiently rugged and accurate for the purpose. The result of this search has been the modification illustrated in Figure 1. A 24-inch curved-arm caliper of commercial manufacture has been adapted to this anthropometric purpose. The sharp points of the caliper, as regularly supplied by the manufacturer, have been fitted with metal knobs five-sixteenths of an inch in diameter. A metric scale in linear form, properly adjusted and calibrated, is attached midway of the arms. The scale is graduated for single millimeters of opening between the points, and has a full range capacity of 55 cm. A small magnifier attached permanently above the scale makes the reading of it more accurate and usually more comfortable.[5]

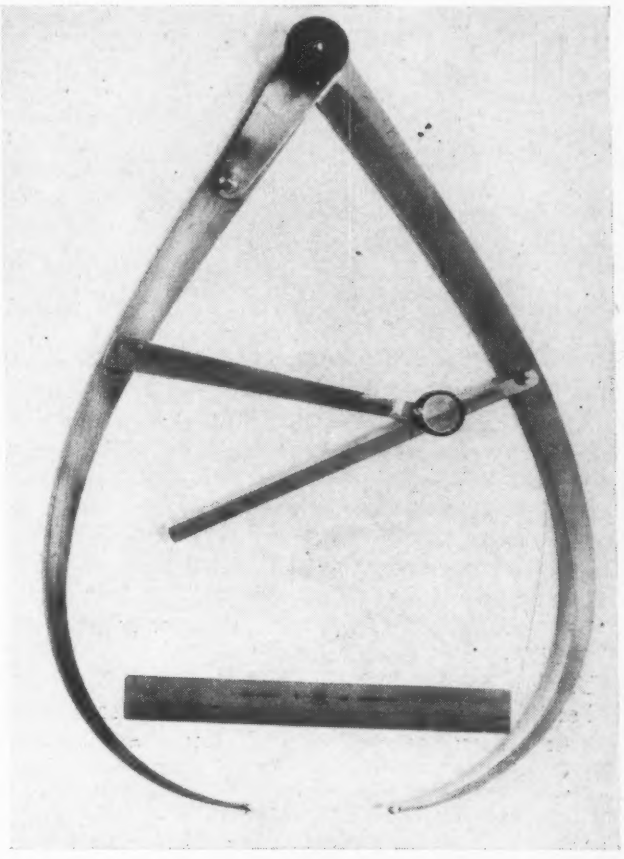

Fig. 1—A caliper for measuring skeletal diameters

The instrument at the time of measuring the hips is held in the horizontal. Its apex rests against the belt of the examiner, who, with a hand on each caliper arm, presses the knobs firmly against bony resistance at the widest points on the iliac crests. The reading should be taken while the caliper is in place and the pressure is being applied. The shoulder diameter is not to easy to take. It has been found convenient for the examiner to stand on a small stool so that he may look down on the shoulders of the examinee and on the scale of the caliper which is held about horizontal. The human skeleton has quite a degree of variability in reference to the position of the acromion processes. Hence this measurement is not as trustworthy as the one usually possible on the hips. Furthermore, the shoulder girdle is a much more loose arrangement, and naturally more influenced by nutritional state than is the pelvic structure. Notwithstanding these criticisms, the bony shoulder diameter between acromion processes is probably too important a measure to neglect. Students of per-

[4] W. R. Miles, Correlations between body widths and other physical measurements on young men, Science, 1928, 68, 382-386.

[5] The caliper as here described may be secured directly from my mechanician, Mr. Frank D. Banham, 1253 Byron St., Palo Alto, Calif.

(Continued on page 49)

The Use of Modern Methods in Health Education

By JEANIE M. PINCKNEY
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ONE justification for giving health education priority in the curriculum is that the methods, procedures, tests, and principles involved conform to the principles of education.* Health education principles therefore, need not fall below the standards of education. We might think of our problem in methods—not so much as one of developing new methods as one of putting into practice the existing modern methods of education.

There are certain familiar methods that are being emphasized by health educators today. Here is a brief of some of the underlying principles used in one method class in health education:

Give the child an opportunity to learn by *doing*.
Work for progressive improvement or *skill* in health practices.
Help pupils to select between *alternative ways* and methods.
Introduce the child to activities that are *problematic* in nature.
Use methods that conform *psychologically* to the child's way of thinking.
Use *life* situations continually.
Teach children to *evaluate* results and associate desirable attitudes with desirable activities.

To get and keep such procedures in practice requires not only skillfully trained teachers, but an administrative set-up which encourages progress along these lines.

What are some of the difficulties in employing modern methods in health education? In answering the following four questions, some of these difficulties are explained.

I. Does the Place of Health Instruction in the Curriculum Effect Methods of Instruction?

In 1918 a commission on the re-organization of secondary education named health as the first of seven main objectives of education. During these thirteen years since, what progress have administrators made in health education?

By reviewing the existing conditions in the elementary grades a partial answer to this may be had. It will be found that in a large number of schools provision for the teaching of health is cared for by:

1. Using every fifth physical education period as a health period.
2. Teaching health on days that rain prevents play.
3. Alternating health instruction with music the first week and with art the second week.
4. Correlating health with all subjects.
5. Using the auditorium period for health instruction whenever feasible.
6. Crowding health instruction into the morning session by beginning school seventeen minutes earlier.
7. Setting aside 15-20 minutes a day for health instruction.

Certainly no important outcomes or proper presentation of facts could result from such arrangements. Under these circumstances health instruction becomes "second fiddle" in the teacher's and child's interest. Usually the text-book method or the lecture method is used in these indiscriminate periods. Health instruction which deals with all phases of living cannot be successfully taught in such brief periods, in periods that are subordinated to other activities of the curriculum, or in periods that are not conducive to real study.

Fortunately this condition is not true of all schools. Some few schools, certainly not a majority, are providing adequate time and definite periods for health instruction. It is through these situations that we find the best educational methods, such as the development of activities and units of teaching. In applying modern methods in health education, therefore, the situation requires not only an adequate time allotment but a definite period for insuring security and permanency from year to year. Is it not reasonable to believe that the place of health instruction in the curriculum does affect the methods used?

II. Do the Methods of Other Subjects in the Curriculum Help to Determine the Methods in Health Instruction?

Schools as a rule are very slow in adapting modern methods of education. At least the majority of teachers are clinging to the old formal, text-book method of procedure. That their methods are determining largely the methods used in health instruction is a point to be seriously considered. Even though the teacher of health may be better and more recently trained in methods than other teachers with whom she works, yet the pressure brought to bear by the majority of teachers in the schools determines largely how the health instructor teaches. It seems that the easy, quiet, formal text-book procedure, followed by the majority of teachers, becomes a pitfall eventually even for teachers who brave an attempt at modern methods.

To provide the child opportunities to learn by *doing*, to use activities that are problematic in nature, or to select between alternative ways, are procedures that do not come readily from text-book study.

Because health education may be the latest arrival in the curriculum is no reason why the administrator should expect the procedure to be traditional or to be

* Paper presented at the convention of the Southern Section, Louisville, Kentucky.

based on other discarded educational point of view. On the other hand, is it not reasonable to expect the recently trained health and physical education teacher to take a lead in using modern methods?

III. What is Lacking in a Teacher's Training That Makes Her Methods Ineffective in Health Instruction?

In answering this question the points and illustrations will be made clearer if one age level is adhered to. The pre-adolescent age, an unusually interesting age that bridges two rather critical ages of health—the primary and the adolescent age levels—will serve. Your attention is called to the fact that the 10-11-12 year ages afford an opportunity for diminishing certain *undesirable* characteristics, and in addition are ages in which certain *desirable* characteristics and traits are strengthened and crystalized. It is the interpretation of these age levels that influences largely the conception of the underlying principles of methods to be taught to teachers of health.

It is generally believed that method deals with subject matter, material, and procedures; that it deals with what the child shall learn and how the child shall learn; that many sorts of learning take place simultaneously. Such is an interpretation of method from the standpoint of the child. However, when the teacher's procedure is based on methods that go only this far, she fails to "help the child to do well those things he most likely will need to do"—because she is ignorant of the child she is teaching. Method deals also with an understanding and appreciation of the traits, characteristics, needs, interests, and reactions of the child. Without the application of these, the teacher's method of instruction becomes devitalized because it fails to include life in the situation.

For example, the teaching of growth in the pre-adolescent grades may include the use of height-weight-age tables; the keeping of classroom growth records; the drawing of a growth curve; the emphasis of growth-promoting foods; the value of sunlight, fresh air, exercise, etc. The pupils become interested in the activities of manipulating the scales; in taking their own measurements; in figuring out their own losses and gains; in studying the sun's rays and spectrum; in making a sun suit, etc.

The teacher trained in the development of the child of this age knows that the girls are making a greater gain than the boys—that the girl's gain is from eight to thirteen pounds, while the boy gains only six or seven pounds; that there is a slight antagonism between the boys and girls of this age; that they like to work in groups. Therefore the groups become boys and girls and not girls vs. boys.

She knows that the child of this age level has a remarkable memory; that he has gained skill in arithmetic; that he is easily discouraged in drawing, but is willing to practice to gain skill; that his reasoning and judgment are developing. She knows what to expect of him and how to use and supervise his abilities. She knows that he is chiefly an out-of-door animal; that he enjoys the sunlight, exercise, and rest in the environment of the out-of-doors.

As an outcome, certain desirable characteristics have been strengthened through activities which have been selected because they provide experiences for the purpose of developing these desirable traits and characteristics. For example, the development of the growth curve afforded an opportunity for the development of reasoning and judgment, for greater skill in arithmetic, and for improvement and interest in drawing under supervision.

Activities of this age level require a working knowledge of the traits, characteristics, needs and interest of the pre-adolescent child. He is definitely an individual and an interesting personality. He differs from the primary child and from the adolescent child even though he is growing from one into the other. When the teacher has the picture of this child in mind, her teaching becomes much more effective. Such training prepares her to meet the child's needs, interests, and problems. When a parent reports to the teacher certain faults of her child, a teacher trained in child development and care is capable of understanding the reason or cause of this fault. Of recent years parents have reported certain faults of the pre-adolescent child and these have been listed according to their frequency of mention. The list[1] includes the following:

Stubborn	Interrupts
Argues	Excitable
Slow in dressing	Restless
Slow to obey	Contradicts
Thoughtless about duties	Talks too much
Hates to go to bed	Easily influenced
Forgetful	Quarrelsome
Bad temper	Untidy in the room
Teases	Slow to act
Nervous	Timid
Impatient	Bad table manners
Fears the dark	

Should the teacher use these problems to advantage in her teaching? If trained, she realizes first of all that these problems can easily be traced to those traits that she is endeavoring to strengthen or diminish. For example, the parent complains because the child is forgetful about putting up his things, and slow about dressing and getting ready for school. The teacher knows that there is a reason for these faults as the child's power of prolonged retention is increasing, that his muscular coordination is increasing, his time concept is weak but increasing, etc. Therefore her selection of activities at school includes experiences which will help to strengthen these desirable traits.

For example, by introducing at school a competitive record of dressing habits among the pupils, she actually increases their skill, accuracy, and quickness in dressing from day to day in home practices.

The teacher should use an activity in health instruction knowing why this activity has been chosen and what relationship exists between the activity and the child's need or interest. Does she employ contests in skill because she appreciates that the child of this age loves to work in groups, likes competition, and is willing to practice to gain skill? Does she introduce prob-

[1] Germane and Germane, "Character Training, A Program for the Home." Silver, Burdett and Company, 1929.

lematic situations because it provides an opportunity for reasoning and judgment—traits that are increasing during this age? Does she introduce worthwhile arguments because this pre-adolescent persists in arguing?

While it is essential to have a repetition of certain health habits throughout these various age levels, it is not necessary to make the approach and presentation of these habits monotonous. Due to the differences in traits, interests, and needs of these various age levels, there is a wide choice of activities to be used in teaching the comparatively few health habits to be taught.

In the training of teachers in health it might be worthy of consideration to say that a teacher shall first of all know and understand the child, his nature, and his needs, and that these shall be determining factors of what they shall teach and how they shall teach it.

VI. Does the content of courses of study and health texts encourage modern methods? Do they show this influence of training in child development?

The course of study in health and the health text are the chief guides for the teacher in her health instruction. Perhaps we can think in terms of the course of study as providing largely the objectives and the texts as providing subject matter and methods. But how well do courses of study state objectives based upon the child's interests, needs, problems, traits, characteristics, and how well do the texts provide useful methods? For example, what difference is there in the direction given for taking care of the teeth at these various age levels? The primary age is a snaggle tooth age and great care is needed to protect sore gums; the pre-adolescent age needs to care for the new set of permanent teeth.

How well this is done can best be measured by the criteria which are discussed in the following paragraphs. These criteria are considered from the standpoint of their application to courses of study and health texts.

1. *There should be a clear conception of objectives which are an outgrowth of our best knowledge and understanding of the child's present interests, needs, and characteristics.* As a rule the objectives are more general than specific and even when they are specific there is no *apparent* coordination between the activity suggested in the objective and the child's trait, characteristic, need or interest. For example, a course of study states as an objective, *to teach the child to dress himself*. The objective might be to teach the child to dress himself without help and within a reasonable time (10 minutes). This last specifically plans to overcome dawdling, slowness of action, and being "tied to mother's apron strings."

2. *The methods and procedures employed should be educationally and psychologically sound and directed at the achievement of objectives set up.* If it is necessary to introduce the teaching of alcohol and tobacco in our health material, then the methods employed should be as educationally sound as possible. Perhaps there is an inclination here for more use of emotional appeals than with other topics of health. Emotional appeals should re-enforce rather than confuse rational thinking. Stimulation of fear, disgust, and distaste should be used cautiously.

Another example of deviation from psychologically sound methods relates to the use of negative teaching. A count of the number of pictures in elementary health texts showed that they range from 169 to 30 pictures. Some books counted no negative pictures, while others counted as many as 44 per cent negative. Perhaps it is not expected that health education instruction should be free from all negative methods, yet it is accepted that it is generally a better method to teach the child what to do rather than what *not* to do.

3. *The subject matter should be scientifically correct or at least authoritative.* Dr. Lerrigo sums this up very effectively when she says:[3] "We give materials and subject matter to boys and girls in order that they may act upon them. Unless we get action, we do not feel that our subject matter and our materials have been of very great value." Suppose, however, that our subject matter or material does get action and the boys and girls do act upon the material we have given them—if our information is basically untrue or inaccurate, then they will form habits and pursue a course of action which may be distinctly harmful to them.

"Take an illustration from the materials in use in school environment: If there is a common towel in the washroom of the school the child learns to use a common towel after washing his hands. That is distinctly a harmful kind of teaching material from the point of view of this criteria of scientific accuracy.

"Exaggeration in material is likely to invalidate the scientific accuracy. We often find such statements as this: 'You never saw a football hero who had bad teeth.' Such a statement may create an attitude of distrust in the child's mind. Intelligent reasoning is a more sound basis for control of behavior than misleading or exaggerated statements."

4. *All subject matter should be graded and should aim to meet the objectives for that age level.* In a recent survey, one text out of six stated the grade for which it was written. This may not be entirely the author's fault but at the same time the contents of the book do not really reveal to the intelligent reviewer for what grade it is intended.

5. *Attitudes and practice should be antecedent to knowledge and emphasis should be on doing rather than reciting.* The majority of activities listed in present-day texts showed that three-fourths of them centered around reading, writing, and drawing, while one-fourth was devoted to such activities as hand construction work, experimentation, debating, etc. While the tendency is away from the mere acquiring of subject matter, we have far to go before we are giving the proper emphasis to practice and attitudes; to activities instead of questions and answers.

6. *Units and projects which include related learnings should be used in order to encourage consecutiveness*

[3] Lerrigo, "School Health Progress," American Child Health Association, 1930.

(Continued on page 54)

Recreation for Adults

By

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PLAY and recreation are often confused but in fact they are very different in function. Play is a great creative force in the life of childhood. Recreation is the restorer of depleted energies and powers for the adult. This restoration comes to us through sleep, through rest, through the family life, and through certain activities and conditions that speed up the active forces, increase circulation, assimilation and the general functioning of every organ so as to place at the command of the body a larger store of energy.

It is well known that there is a point for every individual beyond which an increase of working hours decreases the product in amount and much more in quality. Some people can work efficiently and well for eight or ten hours a day, others for only four or five.

Not many years ago the working day was twelve hours long. When it was proposed to shorten this day to ten hours, it was claimed it would be necessary also to reduce wages, but on trial it was found that the ten hour day produced somewhat more than the twelve hour day. Likewise when the working day was reduced from ten hours to eight, it was found in many if not all occupations that the product was not decreased. The largest number of accidents come just before the closing time in the morning and afternoon of the long working day. The research of Brandeis and Goldmark showed that when short intervals of rest were interspersed through the working day, the output was considerably increased and in some cases more than doubled.

It is difficult to arrive at any accurate estimate of what forms of relief are most effective, but there can be little doubt that short periods of music, dancing, calisthenics, or a good story given at stated intervals in any factory, will increase the output.

Recreation improves health. All sensations are increased by attention. If we fix our minds on little aches and pains they soon grow to great ones. In hypnosis sores may be caused by an intense fixation of the attention on a pin prick or a minor abrasion. We need to get our thoughts off ourselves. Work may do this for a long time, but there will surely come a time when we need also to forget our work. There is no greater help to recovery from sickness, cares or worries, than an absorbing interest. Recreation keeps us sane.

Recreation promotes mental growth. The word "scholar" comes from the Greek word "skole," which means leisure. When we are weary we get no new ideas. We can only follow routine. Our periods of growth come when we get a new point of view, which usually is found relaxation or play. It is not the knowledge we take in that makes us wise, but the knowledge we digest. "Knowledge comes, but wisdom lingers." It is in those periods when the mind is free, that the process of intellectual assimilation chiefly goes on.

HENRY S. CURTIS

Recreation is necessary to friendship. It is only when we drop our cares and worries and thoughts of work that we may be good companions. Nearly all friendships are formed and kept in leisure hours. Grover Cleveland used to say "Every man should keep through life his interest in some form of sport because that is the only way he can be a good companion."

Recreation for adults is built on the margins or surpluses of life. The first of these is the margin or surplus of time. If all our time is taken in toil, we can have no recreation. The second margin is a margin of energy. The doctrine of surplus energy does not go far in the explanation of the play of childhood, but it is a necessary condition to the play of the adult. If we are exhausted when our work is done, the only recreation we seek is rest. The larger this margin of energy the more we shall play. The third margin is financial. If it takes every cent we earn to pay our board bill, we have nothing left to play with. We cannot go to the theater or opera without a ticket. We cannot hunt without a gun and ammunition. We cannot drive without a car. At bottom our prime purpose in getting money is to give us a chance to play in the way that most appeals. All of these margins are increasing. Apparently the golden age of play lies in the future.

It is coming to be our accepted social doctrine that society must furnish children an opportunity to play. We have generally said that adults should pay for their own recreation. We furnish playgrounds free in our

cities; but we charge for movies and theaters, swimming and golf. But in a large way society is coming to pay more and more attention to recreation for adults. We are seeking to protect the fish and game not primarily for their economic value, but for their recreational value. We are acquiring great and expensive city parks, county parks, state parks and national parks. We are building at the expense of hundreds of millions of dollars a year great systems of hard surfaced roads. We may delude ourselves into thinking we are doing this for commercial purposes, but if we will observe our mental processes a little more closely, we will see that the real reason is that we like to drive on such roads. We may expect increasing provision for adult play.

Recreation must keep alive those parts of us that are not used in our daily work. It must rest the wearied muscles and brain cells and ease the tension of stored energy. Recreation may come from a change of occupation, if the previous occupation used only a portion of our energies and did not lead to general fatigue. Those who are leading lives of great physical activity should find their play in quieter ways, as in reading, music, and drama. Those whose daily work is sedentary should follow the more active forms of recreation. But often neither of these classes has been fitted by education or training for this.

Leisure is everywhere increasing, but we are scarcely beginning to train for it. The games promoted at our universities and colleges, our so called major athletics, are primarily spectator sports. Except for a few years of life and a very small proportion of the population, they do not serve any purpose of active play. Men of fifty are not in physical condition to play American football or basketball. Still less are they able to stand the mental and nervous strain of our inter-collegiate type of sport. If we are to prepare our young people to keep fit and find nervous relief through athletics, we must encourage games of a different type and in an entirely different spirit.

Columbia University requires all of its freshmen and sophomores to play tennis, volley ball, soccer, basketball and baseball. The University of Illinois expects every man before graduation to master at least two different forms of sport that are suited to later years. Every university and college should do the same.

To many, the best form of recreation may be a hobby, as a garden or chickens, or collecting bugs or stamps, or photographs. To the naturalist, the field trip where specimens abound may be best of all. To the astronomer, it may be the chance to use the great telescope; to the doctor, it may be a sojourn with the Mayos. To the idle, it may be a job. The movie is one of our chief forms. It furnishes forgetfulness to millions. The auto is very nearly, if not quite, our principle pastime. It takes enough attention to drive it to distract our thoughts from ourselves, and it brings the whole family along.

Recreation should be wrought into the texture and plan of our lives, so that it does not seem like something grafted on. We should not often work at such tension that we cannot relax. Every day there should be an hour or so for the family life, to play and gossip with the children. At the week-end there should be golf or tennis or swimming or a trip. At some time during the year there should be a month or more (the time increasing with age) for leisure with hunting, fishing or some other form of play.

Companionship represents about half of recreation. We do not care to play alone. Most of us would not go on a vacation if we must spend it by ourselves. For companions we wish those who are sympathetic and understanding. We can not relax except in a friendly group. We should not need to weigh our words. Emerson says: "A friend is one with whom we may think aloud." The wife should normally be the husband's best play-fellow. But children are the real experts. They have the spirit of play. They do not talk shop. Their points of view are always refreshing.

More important than facilities or companions is our mental attitude. For often as Holmes says: "One sits down beside the pyramids only to resume the conversation he dropped two weeks before in Boston." We need most of all to take a vacation from ourselves.

There are five subjective essentials to a successful vacation. We must have developed our instinctive life in the play of our childhood, for instincts are apt to lapse if they are not given an opportunity for expression at the right time. Unless childhood gives to adulthood the spirit of play, the latter searches for it in vain. Secondly the years must conserve what childhood has given. If we always carry our cares and ambitions with us, we shall sooner or later so starve our instinctive desires that play becomes impossible. We need to plan our vacations beforehand in order to throw off the spirit of work and take on the spirit of play. Anticipation prepares the mind to enjoy. A change of place helps us to forget. A good conscience is indispensable. If we go to our leisure with a sense of wrong done or work unfinished or neglected, it will take a very exciting form of play to make us forget. Macbeth says "A nest of scorpions is my mind, dearest wife." So also we must have confidence in ourselves and in our ability to cope with situations as they arise. Otherwise we worry too much about the future.

Man has struggled upward laboriously from savagery. The later acquisitions have been gained only by intense effort and voluntary attention. In his play he wants most of all to take a vacation from civilization, to drop back to a life of instinct and appetite and involuntary attention, to be a savage once more and carry on the activities of a savage. He wants to go back to nature. All the sensations that come to us from this environment of fields and flowers, of winds and waves, of birds and brooks, are restful, because they represent the conditions under which the nervous system was developed and to which it became adjusted in the long eons of the past. On the other hand the noises and sights of the city, its jangling bells and rumbling wheels, its rushing cars and busy life are nearly all mere irritants.

In vacation mood we would also gorge ourselves like

(Continued on page 41)

Western Conference Football Strategy

A Review of the 1931 Season

By

G. S. LOWMAN

Professor of Physical Education

University of Wisconsin

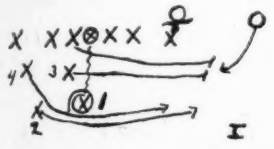

Diagram No. 1. This formation shows the balanced line, ends split away, and a box formation of backs on the left. This play is a spinner in which the No. 1 back receives the ball from center, spins to his left faking the ball to the No. 2 back, completes another full spin to his left, and gives the ball to the No. 4 back. The left guard and the No. 3 back take the defensive end as indicated.

Diagram No. 2 shows the same formation as above. The play is a spinner with the No. 1 back receiving the ball from center. He pivots to his left and fakes the ball to the No. 2 back, completes another full spin to the left, and gives the ball to the left end. The left guard and the No. 3 and No. 4 backs take the defensive end.

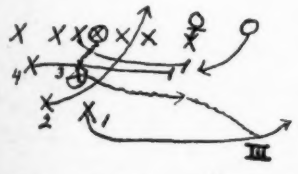

Diagram No. 3 shows the balanced line with a box formation on the left. The No. 3 back receives the ball from center, pivots to his right and fakes the ball to the No. 2 back who hits the weak side of center to draw the defensive end in. The No. 3 back completes a full pivot to his left, then follows the left guard and the No. 4 back who come across for the defensive end; just as he is about to be tackled he makes an overhand lateral to the No. 1 back who has swung out deep to the right.

IN our review of Western Conference football for the season of 1930, we emphasized the fact that football, both offensively and defensively for that season, was superior to that of previous seasons. For the season of 1931 I should say definitely that the offense has been superior to the defense. This is quite evident if one is to review the scores which have been made during the past season. This shows that coaches are awakening to the fact that a good offense is the best defense, and of course a versatile offense makes the greatest appeal to the general public.

This does not mean at all that defense has not been stressed; but considering the resourcefulness and ingenuity of coaches in the development of the possibilities which the modern game affords, no definite set defense can be set up to meet all situations. A defense has had to be built for each succeeding game owing to the different styles of attack and the versatility of the attack.

While there have been no revolutionary changes in the types of attack over that of the 1930 season, there have been some new features brought out during the past season which were not particularly outstanding last year. For example, in the styles of attack during 1931 it seems that formations were used which made it possible for the ball, or the man with the ball, to get to the line more quickly, or to the point of attack without delay; and again, when this type of attack was not used, certain deceptions were developed in the attack to confuse the defense and cover up the point of attack.

Of course, there has been that same intense interest in relation to individual assignments, timing of plays, proper alignment of interference. getting power ahead of the play, and effective blocking, yet certain of the more open phases of the game have been more greatly stressed. There has been a greater use of deep forward passes. There has also been a higher development of forward laterals, and these forward laterals have been used very successfully at times as a definite scoring attack from the middle of the field. The shovel pass, or the forward pass behind the line of scrimmage, has been in greater evidence than ever before and has been very successful for long gains. In some instances, where this forward pass has been completed behind the line of scrimmage, a lateral has also developed off this same play beyond the line.

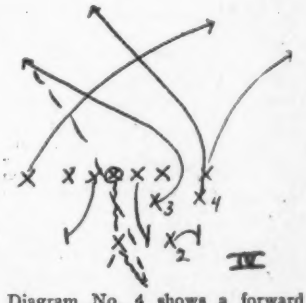

Diagram No. 4 shows a forward pass from the balanced line and the box formation on the right. The right end goes down deep and to the right. The left end comes across deep and to the right. The No. 4 back goes down deep and breaks slightly to his left. The No. 3 back cuts through the line and breaks deep across to the left at about a 45 degree angle. The guards and the No. 2 back protect the passer; the pass is made as indicated.

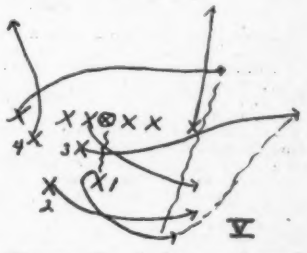

Diagram No. 5 shows a forward pass from the balanced line with the box formation on the left. The No. 1 back received the ball from center, spins to his left, and fakes the ball to No. 2 back, and follows right in behind No. 2, and passes as indicated, either to the No. 3 back who has gone flat to the right, or to the left end who has paralleled across behind the opponents' line of scrimmage. The left guard swings out to the right to protect.

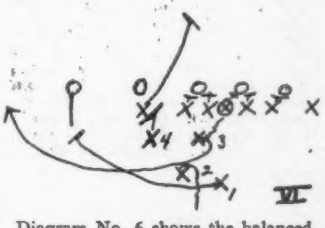

Diagram No. 6 shows the balanced line with a box formation of backs on the left. This play is a fake forward pass. The No. 3 back receives the ball from center, but the No. 2 back fakes that he has the ball, and fakes giving it to the No. 1 back, who breaks to the left and takes the defensive end. The No. 2 back starts straight back with his back toward the line of scrimmage as if he were going back to pass. The left end goes down and hits the defensive right half back, No. 4 back blocks the tackle. No. 3 back, who has the ball, delays momentarily, then swings out wide to his left all alone. A very confusing play.

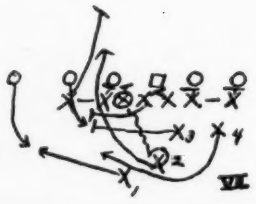

Diagram No. 7 shows an unbalanced line with the ends split away about one or one and a half yards and a Z formation of backs on the strong side. The wingback, or the No. 4 back, varies his position either to the inside or to the outside of his end. The play shows a spinner play where the No. 2 back receives the ball from center, spins to his right faking the ball to the No. 4 back, completing the spin and hitting inside the weak side defensive tackle. The No. 1 back goes to the defensive end, the left end goes through for the secondary, the right guard and the No. 3 back check the defensive tackle out. The No. 4 back starts in motion backward just before the ball is snapped from center.

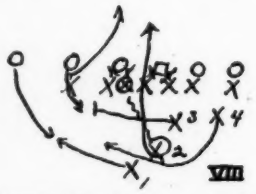

Diagram No. 8 shows a spinner play by the No. 2 back from the formation above. The No. 2 back receives the ball from center, fakes his spinner to the No. 4 back the same as in the play above, then hits right back between the center and the strong side guard. The left end goes through for the secondary, the No. 3 back checks the defensive tackle out.

Diagram No. 9 shows a strong side spinner from the above formation. On this play the No. 4 or wingback is on the outside of his end. The No. 2 back receives the ball from center, spins to his left, and fakes to give the ball to the No. 1 back, completes the spin, and hits inside the strong side defensive tackle. The right end cross-blocks back on the defensive guard. The No. 3 and 4 backs take the defensive tackle out. The left guard leads the play.

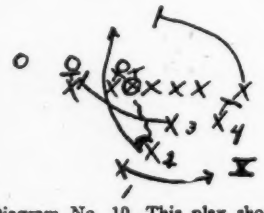

Diagram No. 10. This play shows a fake spinner by the No. 2 back to the No. 1 back, then the No. 2 back hits inside the weak side defensive tackle with the No. 3 back leading the play. A quick play, and the defensive end does not get in.

Every team, of course, had a lateral pass which was developed to the weak side as well as to the strong side. The use of the lateral from scrimmage this year, however, has not been as noticeable as last year. Teams, of course, used the lateral as a threat to make other plays go, and in some instances it has been used as a definite scoring play, yet the lateral has not revolutionized the American game. The greatest development that I have noticed during the past season in regard to the lateral has been in connection with the spinner play. Some teams have used very successfully the lateral off the spinner. There has been practically no use made of the lateral on return of punts or on the return of kick-offs; and no noticeable use of the lateral ahead of the line of scrimmage except following the completion of a forward pass.

I think there has been a decided improvement in regard to all spinner plays—the full spinner, and the full spin and one-half have been used successfully. The spinner has been used both to the strong and to the weak sides, and it has been used very successfully in faking reverse plays to the strong side wingback. The full spinner has also been used very successfully in faking to a back and giving the ball to an end around.

There has also been a decided improvement in punting over the 1930 season. There were many good punters in the Conference during the 1931 season, and usually the punt was used strategically in placement to out-of-bounds and as a definite phase of offense in playing for the break. All teams, of course, had the quick kick, but it was not used as extensively as last year. There has been an improvement in place kicking for the point following touchdown. There has also been an improvement in the kick-off, and I should say, too, that there has been a decided improvement in the return of kick-offs and in the return of punts. A certain amount of strategy has been shown in the return of the kick-off. Most teams in the return of the kick-off drop back and wedge in front of the runner, and it has been noticeable in this wedge formation that there has been a certain timing and a split opening as an outlet for the man with the ball. I should say that open field spiking and the quick forming of interference in the open has been an improvement over that of the previous season.

With certain teams, at least, sweeping end runs have developed in popularity, and with a massed interference on the end. This is particularly true from the double wingback formation, and the outlet of the play may be either outside or inside the end. Of course, both wide and short reverses have been in evidence, but I do not know that they have been stressed quite as much as during the 1930 season. In the whole attack, the forward pass has held an important place and is recognized as a definite offensive play—not as a last resort play. There is no longer any orthodox down for passing—it may be used on first down or at any time, and on any part of the field. Forward passing seemed to be a little more loose during the past season; there was, for example, a greater use of the forward, particularly when followed up by a lateral and on first down. Teams

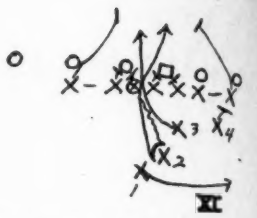

Diagram No. 11 shows the strong side line with the Z formation of backs, ball passed from center to the No. 2 back who fakes a spinner to the No. 1 back, then hits between the center and strong side guard with the No. 3 back leading.

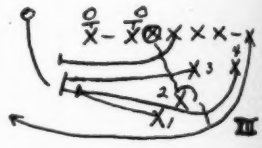

Diagram No. 12 shows the strong side line with the Z formation of backs on the strong side, and a spinner play from the No. 2 back who pivots to his right, fakes to give the ball to the No. 4 back, and then does give it to the right end. The right guard, the No. 1, 3, and 4 backs take the defensive end. The right end or ball carrier swings wide.

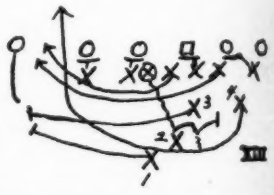

Diagram No. 13 shows the strong side line and the Z formation of backs on the strong side. The ball is passed from center to the No. 2 back, who starts to his right and gives the ball to the No. 4 back for a reverse to the weak side. The No. 1 and No. 3 backs take the defensive end out. The strong side guard and the strong side tackle swing around close through the opening, and the No. 4 back cuts inside the defensive end.

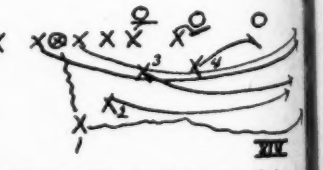

Diagram No. 14 shows the Z formation of backs on the strong side with the wingback outside his end. The play is a wide sweep where the wingback dives under the defensive end. The No. 2 and 3 backs lead the interference, and the No. 1 back takes the ball for a wide sweep. Both guards come out and swing fairly wide with the backfield interference. The right end and the right tackle block laterally on their defensive men.

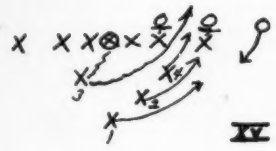

Diagram No. 15 shows a short kick formation balanced line, ends out about two yards, No. 1 back five yards back from the line of scrimmage. The play shows a mass on tackle by the No. 3 back to draw the defensive end in.

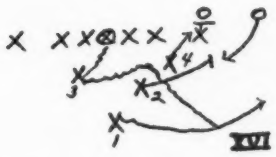

Diagram No. 16 shows the kick formation as above, the ball passed from center to the No. 3 back for a mass on tackle, the same as in Diagram No. 15. This draws the defensive end in, the No. 1 backs swings a little to the right, and the No. 3 back makes an overhead lateral to No. 1.

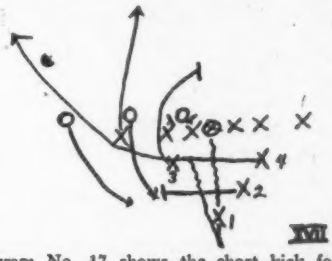

Diagram No. 17 shows the short kick formation and a forward pass behind the line of scrimmage. In this play the left end avoids the tackle and goes down deep. The No. 3 back cuts in behind the line to block the defensive fullback. The rest of the line holds tight. The No. 2 back times out and blocks out the defensive right tackle. The ball is passed from center to the No. 1 back who steps back, or raises the ball and steps back, and then makes an underhand forward pass to the No. 4 back at the point indicated behind the line of scrimmage.

at all times during the past season have seemed to want the ball and to be on the offense. Substitutions were made more freely during the past season. This may have been due to the hard aggressive type of offense or the stressing of offensive play. There also seems to have been more penalties for backs in motion after the shift. This may also have been due to the unusual stressing of the offense. The majority of teams in the Conference had some sort of shift for backs, or backs and line, following the huddle and before the ball was snapped.

The double wingback formation, while very popular in 1930, was seemingly not so much in favor during the past season. During 1930 this formation was accepted as the fundamental formation for six of the Conference teams; but for 1931 there were but three teams using the double wingback. These formations were all quite similar—usually an unbalanced line, ends tight, wingbacks one yard back and just outside their respective ends, the blocking back or quarterback about two yards behind the line and a little to the strong side, and the fullback from three and a half to five yards back of center, depending upon the type of play. On some plays a man is in motion before the ball is snapped.

Those who favor the double wingback recognize this formation as a good bucking formation, since it does spread the defensive line; and of course it does furnish an opportunity for both strong and short side runs with a massed interference; it is also a good formation for reverse plays, is a very good forward pass offense, and is adapted to laterals and fake spinners and the quick kick. But the greatest criticism against the offense from the double wingback is the fact that the interference and the ball carrier must move laterally behind the line of scrimmage for too long a time before the point of attack is reached, thus giving the defensive line time to break through, and also giving time for the secondary to come up and meet the attack.

The single wingback formation, either from a balanced line or an unbalanced line, and the short kick formation from the balanced line with the ends slightly split away, seemed to be the favorite formations for the 1931 season. One school, of course, maintained the traditional long kick formation, another the box formation of backs behind the center, oftimes with a wide flanker, and one school used the traditional box formation of backs to either side of center. But as I mentioned above, the single wingback and the short kick formation seemed to be most favored.

With the single wingback one has an opportunity to get to the point of attack quickly; it lends itself well to spinners both to the strong and to the weak side, also reverses to the weak side; it can be developed into a strong short side play; and it is an acceptable forward pass formation. Laterals, of course, may be developed at any time from off the spinner.

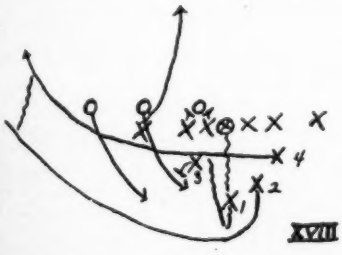

Diagram No. 18 shows the short kick formation and a forward pass behind the line of scrimmage followed up by a lateral. On this play the left end goes down deep, the No. 3 back times out the defensive tackle, the No. 2 back slides back a step, and makes a forward pass to the No. 4 back behind the line of scrimmage as indicated. The No. 2 back follows the No. 4 back, and as No. 4 is about to be tackled No. 4 makes a lateral to No. 2 back.

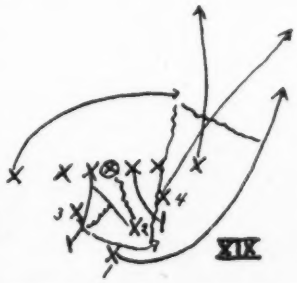

Diagram No. 19 shows the short kick formation and a forward pass beyond the line of scrimmage, followed up by a lateral. The right end goes straight down deep. The No. 4 back goes down deep at about an angle of 45 degrees. The No. 2 back receives the ball from center, starts across diagonally to his left to buck the line, gives the ball to the No. 3 back who swings back and across and passes to the left end, who has cut across to the right behind the opponents' line of scrimmage. The No. 1 back swings out and down to his right and receives a lateral from the left end who has received the forward pass.

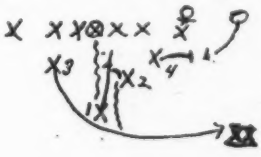

Diagram No. 20 shows the short kick formation, the No. 1 back receiving the ball from center. He starts straight in as if to hit the middle of the line, but gives the ball to the No. 2 back who starts straight back but makes an overhand backward pass to the No. 3 back who swings wide to the right.

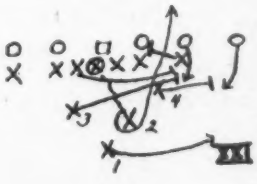

Diagram No. 21 shows a spinner play from the short kick formation. The No. 2 back receives the ball from center, spins to his left faking the ball to the No. 1 back, completes his spin, and hits inside the strong side defensive tackle. The right end cross blocks on the defensive guard, the No. 4 back takes the defensive end out, the left guard and the No. 3 back take the defensive tackle out.

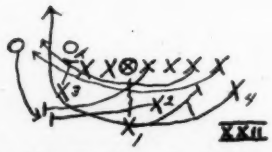

Diagram No. 22 shows the double wingback formation, strong side on the right, ends tight, and the backs one yard back and a little to the outside of their ends. The No. 1 back is about 3½ yards back of the line of scrimmage. The ball is passed from the center to the No. 1 back who starts to his right but gives the ball to the No. 4 back who reverses back to the weak side inside the defensive end and close over the defensive tackle. The right guard and the No. 2 back take the defensive guard out. The No. 3 back helps the end on the defensive tackle. The strong side tackle and the strong side end lead the play.

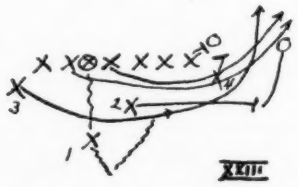

Diagram No. 23 shows the double wingback formation with a forward pass behind the line of scrimmage. On this play the No. 1 back is about 4 yards back from the line, receives the ball from center, slides back and a little to his right, and makes a forward pass to the No. 3 back behind the line. The No. 2 back takes the defensive tackle. The two guards lead the play, and No. 3 after receiving the forward pass slides through inside the defensive end.

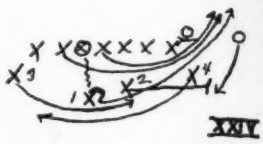

Diagram No. 24 shows the double wingback formation. No. 1 receives the ball from center, fakes to backs No. 3 and 4, who swing on the double reverse, then No. 1 carries the ball for a slide off play just outside the defensive tackle. Back No. 2 takes the defensive end out, the two guards lead the play just off tackle. On this formation a similar play is used in which No. 1 makes but a single fake, to No. 3, and then carries the ball himself just outside the defensive tackle. No. 4 then hits straight ahead and helps on the defensive tackle.

The short kick formation has proved to be a fine type of offensive formation for the different phases of attack. It is good for short inside plays both to the strong and to the weak side; it is also adaptable to the fake spinner and for plunges into the line; it is adaptable to double passes and the spinner play and to laterals. Furthermore, it is especially adaptable to the forward pass behind the line of scrimmage, can develop readily into a pass or punt formation, and of course is adaptable to the quick kick.

There have been no noticeable spread plays, although a spread kick formation has been shown for kicking and passing. Quite often a wide flanker has been used, and in one or two instances a sleeper has been used on the return of kick-offs. The spread formation, as a definite formation in itself, has been largely eliminated. At the close of this article some offensive formations will be shown which are typical of the past season.

In discussing the defense for the 1931 season I shall largely have to repeat my summary of this phase of the game for the 1930 season. It is hard to set up a definite standard defense, for the question of defense is largely one of meeting a special type of attack, and defenses may change from week to week. I feel that it is quite true, however, that the majority of teams have come to the six man line defense as more or less standard. During the past season, seven of the Western Conference teams used the 6-2-2-1 defense in the majority of their games, dropping occasionally into the seven man line, with either the diamond or box defense of backs. One team in one or two instances showed a 6-3-2 defense—a tight six man line, ends close, with the outside backs on the first line quite wide. This 6-3-2 defense, while it may have been open to quick kicks and deep passing, certainly permitted the line and ends to drive in fast. The two wide backs could protect the flank, and were also in position to cover flank passes. This 6-3-2 defense possibly meets the line plunging, lateral passing, and reverse attack a little better than the 6-2-2-1, but again its weakness is against the quick kick and deep passing.

As we brought out in our summary for the 1930 season, there are definite reasons for the use of the six man line, and the 3-2 and the 2-2-1 position of backs. It has been found that the increase in the use of the forward pass, resulting in its being tried on any down and also as a combination forward pass and lateral on the same play, has meant that a diamond defense of backs or a box defense of backs could not meet the situation. Then again there is always the threat of the lateral to either side, of the man in motion, and of the development of strong short side plays (lines can no longer overshift). Under the new type of defense all zones are better protected on passes.

Under the 6-2-2-1 or the 6-3-2 defense the coach needs no longer hesitate in sending the ends and the tackles in fast. The secondary, under the new type of defense, is in position to give better support in meeting the new open attack. Of course, some coaches feel that the best way to break up a lateral pass or forward pass attack is to send the ends and tackles in fast; but this is a question, and where this type of defense is

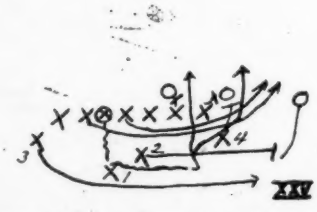

Diagram No. 25 shows the double wingback formation, ball snapped from center to the No. 1 back who starts to his right, bluffing that he is going to give the ball to No. 3 who swings around deep, but No. 1 then cuts in sharply between the defensive guard and tackle, or just outside the defensive tackle. The No. 2 back takes the end out, and the guards lead the play.

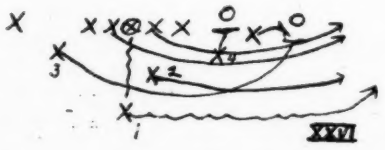

Diagram No. 26 shows a kick formation, ends out about four yards, the No. 1 back about six yards back. The No. 3 back is in motion and drives back on the defensive left end. The offensive right end also helps on the defensive end. The No. 4 back blocks the tackle who is in the seam. The No. 2 back and the two guards lead the interference for a wide sweep by No. 1.

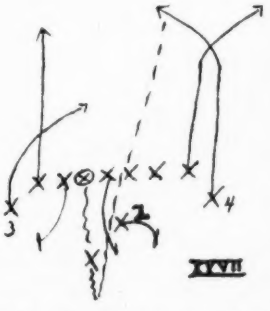

Diagram No. 27 shows a forward pass from the double wingback formation. The right end and the No. 4 back go down together deep and split as indicated. The left end goes down deep, the No. 3 back goes in short behind the line. The No. 1 back receives the ball from center, slides back, and makes the pass. The No. 2 back and the two guards protect the passer.

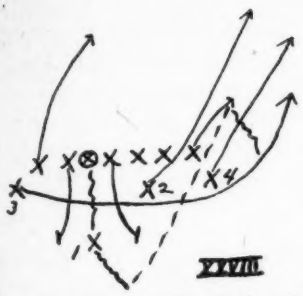

Diagram No. 28 shows the double wingback formation, and the play is a forward pass and then a lateral off the same play. The No. 2 back cuts through the line of scrimmage and goes down deep. The No. 4 back also goes down deep. This draws the secondary back. The right end delays a couple of counts, then receives a forward pass just beyond the line of scrimmage. No. 3 back comes all the way across behind his own line, and receives the lateral from the right end. With the No. 2 and No. 4 backs down ahead of the play, there is excellent interference in case the play is completed.

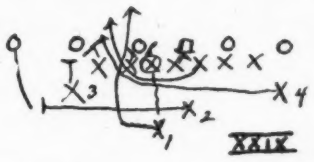

Diagram No. 29 shows a line buck by the No. 1 back from the double wingback formation. The No. 2 back takes the weak side end out. The weak side end and the No. 3 back take the weak side defensive tackle out. The No. 4 back and the second lineman on the strong side lead the play between the weak side defensive guard and tackle. The No. 1 back takes a step to the left, then drives straight ahead.

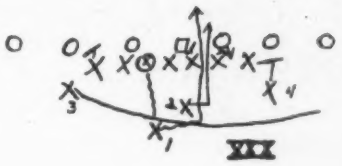

Diagram No. 30 shows the double wingback with the No. 3 back in motion. The ball is snapped from center to the No. 1 back who takes about 2 steps to the right then drives straight ahead between the two strong side guards. The No. 2 back takes a step to the right and leads the play.

used there is always the possibility of a lateral being completed, and should the backs be in the old diamond position, the play would be bound to gain ground. A box defense of backs, with the seven man line, might be better than the diamond to meet lateral passes, for this would permit the ends going in a little faster and a little deeper. But the box has not always proved the best defense against long forward passing. The front line of backs, of course, could cover flat territory, but there is too much of an opportunity for the deep backs being drawn out and a receiver coming down the middle. Under the old seven man line defense I should feel that both the tackle and the end should use judgment about charging in too fast. Under the seven man type of defense, the tackles usually take one step or charge, then hold up. The six man line, with five men in the backfield, however, would permit the tackle to go on in; for any open play or play that might get outside the tackle could be met by the secondary.

We mentioned in our summary last year, under defense, that the six man line against the double wingback formation placed a heavy burden on the defensive tackle, for the tackles were always at the mercy of the wingbacks. But the six man line this year has met that situation by playing the defensive tackles about straight in front of the offensive end, and the defensive ends about two yards outside the defensive tackles. The defensive tackle charged the end straight on hard, while the defensive ends played the wingback as they went in, and in some instances drove the wingback back into the play, letting the wide outside stuff be cared for by the secondary. In this style of defense, particularly against the double wingback, tackles and ends quite often stopped reverse plays before they got under way and tackled from behind on reverse plays which went to the opposite side. The tackles and ends, too, were more effective in holding up the offensive ends and wingbacks from getting out for passes. This tight six man line, too, has also effectively stopped line plunging. Last year, under the six man line against the double wingback formation, the defensive line was spread a little too much, which permitted too much line plunging. This has been remedied this year, as I have mentioned above.

I believe that the six man line is now largely past the experimental stage and can be more definitely accepted as a standard defense, for it more nearly meets the varied types of attack; it certainly protects against laterals and forward passing. During 1930, wherever the six man line was found unsatisfactory, it may have been due to the fact that the tackle was playing too much of a waiting game and found himself at the mercy of the wingback. Under the six man line this year, tackles and ends have both been more aggressive, for with the front line of backs but three yards behind the line of scrimmage, any openings in the line could be met. This front line of backs, too, playing in the split opening between their guards and tackles, or perhaps directly back of their tackles, would be in position to meet laterals to either side of the line. The ends should not hesitate in going in fast to bottle up the play and to smear attempted laterals.

As I mentioned earlier, practically seven teams in the Conference this year have employed the six man line quite regularly. This was particularly true on first downs, and on downs where there was a large yardage to gain. On short yardage plays teams would quite often go into the seven man line, with the diamond or box defense of backs. The majority of teams, of course, went into the seven man line when forced back inside their own ten yard line, and usually with a box defense of backs.

The six man line, as I have seen it used during the past season, has proved that it can stop line plunging, has given a better secondary defense to meet wide laterals, and with five men in the backfield has covered more completely all zones on pass defense. The six man line with five men in the backfield permits more aggressive charging, although weak side tackles and weak side ends should be ever alert to weak side reverses and to short side plays. The weak side tackle, particularly, should be a little more cautious about his charge and should not permit himself to be timed out of the play. Most short side plays are developed on the order of timing the tackle out. Under the six man line with five men in the backfield there is not so much necessity of linemen dropping back on passes. There can be more aggressive rushing of the passer. We realize, of course, that defenses must be developed from week to week to meet the varying types of attack; yet if there can be said to be a standard type of defense, I believe that it is coming more and more to be the six man line, with the 2-2-1 position of backs.

(Continued on page 46)

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Vol. II DECEMBER, 1931 No. 10

Is Football Interest Waning?

SOME observers see in the decline of spectator attendance this fall a prophesy of permanent waning interest in football. It is true that some factors seem to point in this direction: namely the decreased attendances owing to adverse business conditions, the rapidly increasing numbers of radio fans, the counter attractions of golf and other recreative sports, and the decrease of organized school spirit. Yet, on the other hand, there are many signs that point in the other direction and give reason to infer that the lessened interest in football is only a temporary phase. It was demonstrated this season that reduced prices for tickets added greatly to the drawing power of games; and, moreover, that games of outstanding interest drew capacity crowds, even at top prices for seats.

Against the argument that the general public, by staying away during this year of hard times, will lose the habit of attending and will become contented with the radio, there is an off-setting element in the fact that schools each year add materially to the body of alumni who have a loyal interest in attending. Also, with each succeeding year, more miles of concrete roads and more comfortable-riding cars make attending an easier task.

And, finally, football comes in a season which is especially safe against the counter-attractions of other sports. The World Series in baseball is over. It is too soon for ardent participation indoors. Golf, while still alluring in the months of October and November, has many adverse conditions of grounds and weather to dampen the enthusiasms of one who likes to see his drives roll far and his putts go true. In fact, it is from California, where golfing even goes on the year round, that reports of the largest football crowds for the past season have come.

One thing, however, seems quite certain: the public with less money to spend is going to be more critical in making purchases, and this will also apply to its choice of football games. It is becoming more obvious that practice games with easy opponents will not fill the stands. Schools that are anxious to hold their spectator interest will therefore have to be careful in building their schedules to include more teams that offer close and interesting rivalry. Then, even though the attendances may never again reach the high peak of the decade of 1920-30, it seems safe to assume, nevertheless, that football will hold its own in the new scale to which the public will adjust its spending.

Changes of Address

WE wish to call the attention of our subscribers to the necessity for notice in advance when changes of address occur. Without such notice the JOURNAL copies are sent to the old address and frequently, later, when our offices are notified of the new address, the subscriber requests the back copies without additional cost. This loss in copies and postage is one, of course, that the Association cannot assume and so this reminder is made to lessen the frequency of this oversight.

The Second of the Ten Cardinal Points

THE second of the Ten Cardinal Points in the platform of health and physical education reads: *Adequate indoor and outdoor facilities in every school and adequate time in the curriculum.* These are indeed important requirements. The modern activity program demands facilities and time. The notion that boys and girls could be educated by means of reading, writing and arithmetic has given way to a more fundamental concept of the educational process. Likewise faulty is the notion that boys and girls could be educated through physical activities by a series of exercises taught in the classroom by the untrained teacher for ten minutes a day. The essence of motor education is time. A boy will throw a ball thousands of times to learn to throw it accurately; a girl will make a countless number of swimming strokes to master a desired form.

If time is the essence of motor education, space is its correlative. And these two terms filled with connotations of infinity relate in this connection to very limited and finite values. The boundlessness of space that stimulated the philosophers of an earlier day is a mockery for many schools today, surrounded by the factories, stores, and homes of an industrialized community.

Professionally, we often care greatly about aims and purposes. These are, indeed, important. It is a fair question, however, if we would not make a more significant contribution to the profession if we sought and secured more and better play spaces, parks, and playgrounds, more and better gymnasia, dance studios, field houses, and pools. Certainly, this generation of youth could be served better if school schedules allowed for proper classification of children for activities, if a more wholesome distribution were made between mental and physical activities, and if the needs of boys and girls as human, physical and social beings were recognized in proportion to their importance for life and living. It is notable that improvements in this direction are taking place.[1]

[1] Counts, G. S., "The Senior High School Curriculum." University of Chicago Press, 1926.

Exact statements have been proposed regarding minimum essentials in facilities.[3] Strayer and Engelhardt[3] have set standards for the elementary and secondary schools. Standards are available for play and athletic fields.[4] Standards for equipment for college women students are offered by the Women's Division of the N.A.A.F.[5] The Society of Directors of Physical Education in Colleges gives through its report on Physical Education Buildings and the services of its repository of plans at Union College highly valuable aid.

These various standards offer us definite, expert, and authoritative help in our efforts to improve facilities and time schedules. They also give us targets at which to shoot. It is obvious of course that we have not invented these targets for the mere purpose of practicing marksmanship, but rather that we shoot at them because they *are* targets. They will cease to attract our aim only as they cease to be targets. When that day dawns it will then be time for us either, in the fullness of professional zeal, to find new targets, or in the declining vitality of age, to put away our bows and arrows. Is it a fair assumption to say that all of us, who are professionally alive and vital, will continue shooting until one or the other alternative above develops?—By *Dr. Jesse F. Williams, Chairman, Committee on Objectives.*

A Minimum Standard for the High School Program

WHETHER we are teaching in nursery school or on the university level we are constantly trying to evaluate, by objective standards, the program which is our educational tool. Those of us who are teaching physical education in high school and those of us who are preparing teachers for such work as well as administrators who are constantly asked to criticize such programs, welcome the publication made available this summer by the Division of Health and Physical Education of the California State Board of Education. It is in two bulletins. Bulletin E-2 is called "A Score Card for Evaluating Physical Education Programs for High School Boys." Bulletin E-3 is the same for girls.

As I recommend it to JOURNAL readers let me first briefly describe the score sheet and then set forth a few of the ways in which it will prove helpful to us in the field of physical education. Mr. N. P. Neilson, the Chief of the California State Bureau of Health and Physical Education, who is the author of this score sheet, has been aided in setting it up by a seminar group of graduate students and staff at Mills College and by over one hundred and fifty men and women in physical education representing every part of the State and every level of teaching. It is in no sense the opinion of one person or a small group of persons. It has been tried out and it works. It approaches the problem of pupil progress from the objective side of "set-up." Mr. Neilson in his introduction to the score says: "Not having adequate tools to measure pupil progress in terms of their abilities the next best procedure seems to be that of measuring the elements of the school's physical education set-up and then to assume a close correlation between set-up and progress of students." The sheet scores in a perfectly definite way the following: Instructional staff, facilities, program organization, program activities and professional assistance.

Now a word as to its usefulness:

1. If I am an administrator in another field, I may see the philosophy behind the high school physical education program and the minimum essentials needed to present a satisfactory one.

2. If I am a high school principal, I may score my school program and see exactly what items need improving and what I should do to bring about a better score.

3. If I am a high school teacher of either boys or girls physical education, I may score my department and use the results as a lever with the principal to secure better facilities or organization so that the program may be considered acceptable by the standard set by the State Board of Education. I may also see the way to improve my own teaching.

4. If I am in the field of teacher training in any state, I may use this score with my students as a textbook in the organization of physical education in the high school since it sets forth every element of the problem from time allotment, grades, teacher load and the like to intramural athletics and awards, and indicates the ideal practice in each case by the maximum score allowed.

The score is probably not perfect and the author asks for suggestions for improvement, but it is actually a published standard put in scoreable form that we all can use. I recommend it to workers in the field of physical education as a means of improving the high school program in physical education.—By *Rosalind Cassidy, Professor of Physical Education, Mills College, California.*

"Rivals" or "Rivales"?

IN an ancient day "Rivalis" was an adjective meaning "pertaining to a brook." "Rivales" in Latin came to mean "neighbors who got water from the same stream," and contests often arose between these persons respecting their water rights—today they would be called "Rivals."

In this age of extreme competition, we need, perhaps, a return to the idea of "Rivales"—neighbors getting water from the same stream—for, after all, our intense competition is utterly without value, in the largest sense, unless it carries with it the idea of all of us, as neighbors, getting physical, mental and social health from the same great stream called competition. So let us emphasize "Rivales" and not "Rivals."—*By A. S. Hotchkiss, Director of Physical Education, Tennessee Coal, Iron, and Railway Company, Birmingham, Alabama.*

[3] Williams, J. F., "Principles of Physical Education." W. B. Saunders Company, Philadelphia, 1927, pp. 333-365.
[3] Strayer, G. D., and Engelhardt, N. L., "Standards for High School Buildings." Bureau of Publications, Teachers College, New York, pp. 9-14, 70-73.
Strayer, G. D., and Engelhardt, N. L., "Standards for Elementary School Buildings." Bureau of Publications, Teachers College, N. Y., pp. 35, 37, 38.
[4] Williams, J. F., and Hughes, W. L., "Athletics in Education." W. B. Saunders Company, Philadelphia, 1930, pp. 240-261.
Bureau of Education, Department of the Interior. Physical Education Series, No. 1, 1923.
[5] Nash, J. B., "Organization and Administration of Playgrounds and Recreation." A. S. Barnes & Company, New York, 1927, pp. 69-75.
Women's Division, N.A.A.F., "Standards of Equipment and Program for College Girls."

Training in Swimming

By

IRWIN H. COHEN

Swimming Director of Columbia Grammar School, New York City

IN any discussion of swimming, it is necessary at first to consider with just which phase of this valuable activity you are to concern yourself. Natation comes under three main divisions: first from the standpoint of safety; next from the standpoint of the pleasures derived from the water; and finally from the standpoint of a competitive sport. It is with the last that we are mostly concerned. In this article we shall briefly discuss methods of team training as well as procedure.

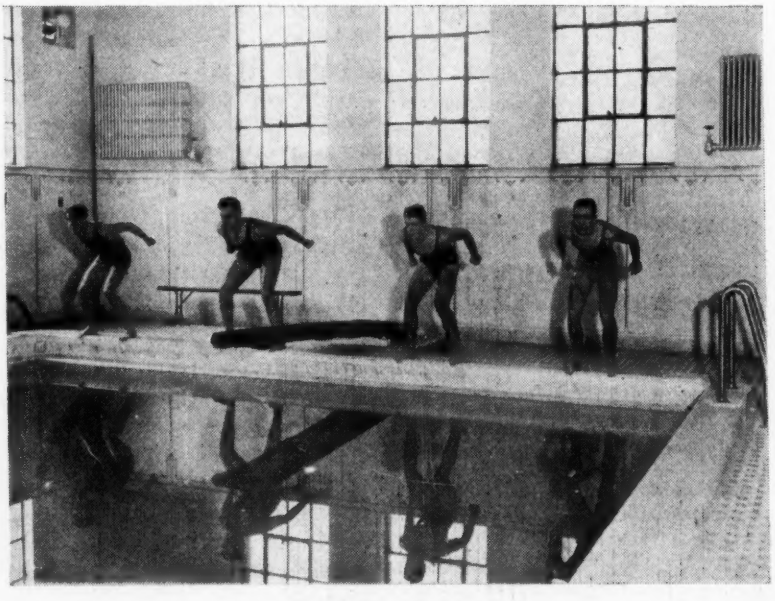
The swimming season comes during the winter months, and for that reason it is necessary, of course, to start team practice long before the Christmas recess. The best plan to follow, as in every other form of athletics, is to start very gradually and work to a climax during the season, when the men are supposed to be in the pink of condition. In swimming, as well as every other sport, it is necessary to spend much time on fundamentals, for, even in swimming (where to many there may seem to be nothing that compares with the general fundamentals found in other sports, such as falling on the ball in football, dribbling in basketball, and stance at the plate in baseball), there are many basic things that require careful study and concentration for later competitive success.

Let us start from the very beginning when candidates are first called out for the team. There should be a meeting. At this first meeting the coach should make very clear to the candidates exactly what is expected of them in so far as conduct in the pool is concerned, also the general seriousness of matters in connection with their work. Training should be emphasized and also the academic responsibilities, because more than one team has lost a majority of its meets due to poor scholastic work which resulted in ineligibility.

As the school with which I am connected is a private high school, it is mainly with the type of candidates who attend private schools that I carry on this discussion; however, the same handling is applicable to most any team. It should be understood from the start that the coach is in full charge, and that anyone with a contrary opinion should give serious thought to this announcement.

The candidates do not go near the pool the first day or the first week. I find that this makes things much more interesting for them, as variety in practice helps a lot. The coach must remember that the candidates are going to spend many days in the pool proper during the season. Let me now give you the schedule for the first week of workouts, which comes usually in the early part of November or the latter part of October—the first meet usually being held about January 10th. The pre-season work may be arranged according to the date of the first meet. On the day of the talk the manager takes the names, ages, weights, and experience of the candidates. If any have had experience, the name of the school or club is requested as well as the events in which they have participated. The group is then advised by the manager to report to the gymnasium next day with sweat shirt, pants, woolen socks, and basketball shoes.

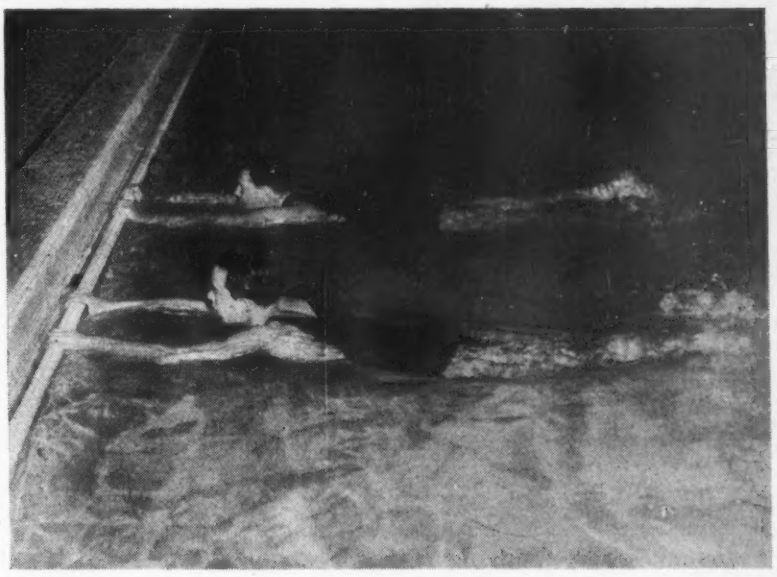
On the next afternoon the coach should be present to look the group over, making sure that they have obeyed all instructions. After attendance has been checked (this is a formality that must be followed at each practice) they get to work. Previously, the coach has received and gone over all the necessary statistics the manager has taken the day before, in order that he may know what material is on hand. The work for the afternoon consists of a good brand of exercising, the purpose of which is chiefly to get the muscles limbered up, particularly those of the legs, the arms, chest, and stomach. This workout usually lasts about thirty minutes, including rests, and after this is completed the boys go to the showers and then home. A week of this and only the men you really want are left, the others having chosen the easiest way out.



Ready for the start!

On the following Monday, there is a meeting in which the

coach explains to the candidates his method of training, and they are told to follow this out by themselves. This self-practice which gives them some responsibility, takes place on Mondays, Tuesdays and Thursdays. On Wednesdays and Fridays the workouts are strictly supervised, with timing every Friday after the fourth Friday of practice. All this information is given at the meeting, after which the coach watches each boy swim two lengths of the pool. He then gives the boy an idea of his faults and tells him what he should strive for in the way of form, which is so essential to speed. The coach then explains to the squad a few of the fundamentals, such as the position of the head in the water, the movement of the legs and arms in the various strokes, and the correct breathing. You will note that I say "all the strokes." I believe that all the boys should gain a general knowledge of swimming as soon as possible.



Kicking practice

Let me return once more to the individual, assuming that he is practicing by himself. After having been informed once at the start of the season, he should learn to do things by himself without bothersome questioning. Please remember that all this goes on under the watchful eye of the coach. During the practice, everything must be done in a business-like manner.

METHOD (Continued)

The first day of actual water work is spent in swimming 75 yards. The program includes 25 kicks from the hips with a 12 inch thrash; also 3 racing starts, getting good distance and making sure of proper stance. Instruction in the form of all these is given to the group. That is the first day, Monday. For the remaining days in the week the laps are increased one a day with the same number of kicks, but one more start is added. On the following Monday the same number of laps are used as on the preceding Friday, with the same number of kicks and starts.

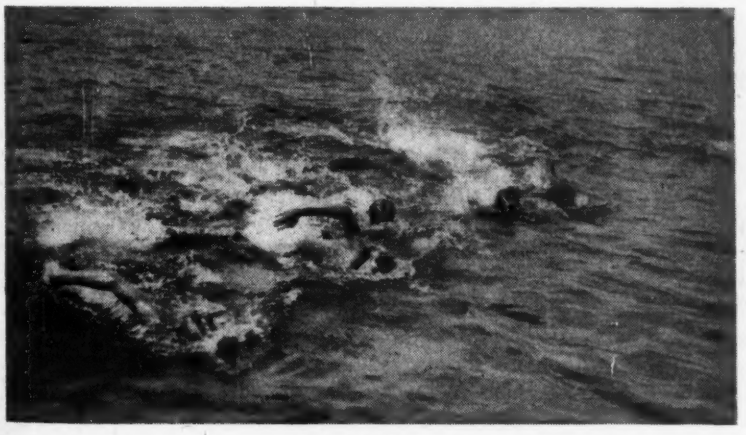
After the boys have reached six dives and have increased five kicks each week to fifty kicks, they continue to practice that number. The laps, however, are to be continued under the aforementioned plan until the 50 yard men are doing 15 laps, the 100 yard men 15 laps, and the 220 yard men 25 laps. The other strokes go in proportion to distance.

The second week the underwater turn is taught, which thereafter is to be used during laps. Five turns across the pool are then also added to the daily task. When once the above distances have been reached, the boys continue to swim that number throughout the season, except of course in case of illness or absence, when a slight reduction should be made.

METHOD (Squad Practice)

On Wednesdays and Fridays plans are somewhat different. On Wednesday there are a number of sprints in which the candidates have ample opportunity to demonstrate their ability and to show progress made in training. On that day the other work is cut in half. On Friday, the final check-up of the week is held; and when "times" are taken, they are recorded in a book for future reference. In addition, on this day and on Wednesdays, definite relay work is done.

This schedule is followed throughout the season, except on the day before a meet. On that day the boys are only required to swim the event in which they may be competing the next day. No definite information is given in regard to those representing the school until just before meet time.



A spirited race

Some people do not agree with the idea of swimming the day before a meet; personally, however, I've seen no harm done by it and often a last day's work will be of considerable aid to the boy. After this short workout, of course, he should be told to keep his mind on anything but swimming.

A word about the speed in swimming the daily laps! The man in charge, when first giving the daily schedule talk should

make sure that the candidates understand the rate of speed that should be used in doing their daily work. The idea may be more carefully explained by comparing slow swimming in relation to fast swimming as similar to the difference between walking and running. It may be necessary to go further to prove your point by explaining that when a man trains for a race in track he does not walk when doing his distance work, but to improve his stamina and form, usually uses a trot. Therefore, a speed between a good, fast pace and that of merely drifting along, should be used. It is far better to swim six laps correctly than 20 in poor form. If a boy finds great difficulty in keeping up with as rapid an addition of laps as is set forth in the schedule, it is advisable to cut his increase to one every two or three days. At any cost the number must be swum well or the entire time is wasted. During these daily laps, the coach should of course call attention to various faults in stroke, kick, breathing, etc., as after a few laps these mistakes are more readily distinguishable than they are when the boy first starts his distance.

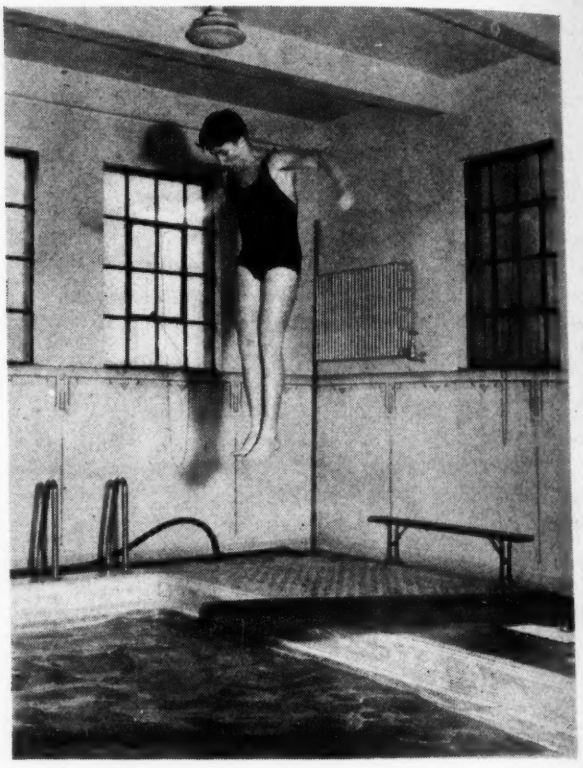
So much for the swimmers who, even though they may be out for different events, may be trained similarly in so far as stroke is concerned.

Let me now discuss diving briefly and consider this event from the standpoint of method of training and attainment of good condition. It is quite necessary that these chaps be in just as fine fettle as those who swim the long distance events. After a talk to the divers on the grace of diving, when the symmetry so necessary in graceful diving is explained, and a further talk on the joy and beauty of seeing diving well done—the coach might instruct the boys to read all the valuable information that is given in the "Intercollegiate Swimming Guide." In fact, all the boys on the squad might find the reading of this booklet very beneficial. To continue, a set of exercises is given to the boys to help them acquire the proper arch of the back, proper movement of the head, the pointing of the toes and general use of the arms in conjunction with head and body movement. The proper muscle coordination and movement of the head is a great factor in diving.

METHOD (Diving)

The first week after the exercising period may be wisely spent in just getting the "feel of the board" and trying to attain height. This is done by bouncing on the end of the board until ready to leave it, then leaping way up in the air and into the water in as good a form as possible. The approach and at least "three running steps" are watched closely during this elementary stage. After a week of this, or until the candidates have shown the necessary confidence and form, the coach goes into an explanation of the front (or swan) dive, explaining form, procedure, entry, etc. This is tried by each boy who, as he comes from the water, is corrected by the coach. All candidates will profit by listening to the corrections.

The work on each dive continues for one week. At that time the next dive in order is practiced. Therefore, the second week the swan or front dive is done in conjunction with the back dive, which is the dive being practiced that week. In this way, while learning one dive, all the work of the previous week is not forgotten. The above method of training is followed until all of the dives have been practiced and mastered. Thereafter, each day on reaching the pool, the student goes through his dives in competitive rotation; that is,



Getting a spring out of the board!

the order followed in the meets. The purpose of doing the dives in sequence is important owing to the fact that in a meet one must do them in order, and the first time counts.

The number of dives, or groups of dives, a boy does daily must vary according to his stamina and to the grade of diving he does. If the candidate is in other events as well as the dive, his diving practice must be cut down to allow time for the other practice. It is of the utmost importance (as explained) that these dives be done in rotation at least six times, except on Mondays when the candidate may leave the pool after having done only four groups, because of the week-end lapse in practice.

On every Friday, after the fundamentals have been learned, a marked diving competition may be held. I might suggest that the "card system" of scoring be used with three swimming team members as officials. This gives an added interest and in this way the coach, as well as pupil, gets a fair idea of the brand of diving being done. Faults are openly corrected during the progress of this diving competition, and the diving score is posted and shown from week to week. I find it beneficial for those out for the spring-board event to swim

(Continued on page 52)

Two boys in a Hygiene Class shining shoes after an inspection has been made

Physical Education in Special Classes

By

W. HERBERT GRIGSON

Superintendent of Health and Physical Education in Special Public Schools, Philadelphia

This is fourth and concluding article by Mr. Grigson

Management and Instruction in Backward and Disciplinary Classes

THERE are two things every teacher has to consider in his teaching, namely, *Management* and *Instruction*. Teachers in Physical Education in Special classes have special problems in accomplishing both aims. Special class pupils, due to their handicaps, are very often unruly or restless. It is quite evident that Management should be the first consideration of the teacher, since no instruction can be given without order and quiet. This is especially true if the teacher is new, or the class is new, or the class is particularly troublesome owing to the neighborhood environment or unsatisfactory school organization and administration.

1. MANAGEMENT

Management in orthogenic backward and orthogenic disciplinary classes is aided by special uses of Habit, Activity, and Interest.

A. Habit

A class should be conducted in the same way every day, starting from the same lineup formation and following through the same order of activities, tactics, exercises, quick response, and either games, apparatus, field and track, or dancing. While the last four activities do not occur every day, they should be approached and organized in the same manner each time they are used. With each succeeding repetition, the class will become more accustomed to the routine procedure. If every day the class comes in, takes off coats and sweaters, and sits down in the same chair or bench, disciplinary troubles soon disappear because each has a definite thing to do and place to go. In fact, after a class has become used to a regular routine, any deviation will cause a great deal of commotion. These pupils hate to think, and the minute they are confronted with something new that calls for attention they become confused. Some one may start pushing, and shortly many disciplinary problems have arisen. I do not mean to say that no attempt should be made to make them think, nor that the program should consist of a schedule that is only to make it easy for the teacher. A definite part of the program consists of quick response activities, and when the teacher has good control of the class, all activities can be more free from habitual routine. But until good management is secured, the use of habitual routine is indispensable.

B. Activity

This is the next greatest aid in management. When the class enters the gymnasium, the pupils should at once have something definite to do—take off coats and sweaters and sit, if the lesson is to be inside, or perhaps line up at once if they are going out to the yard. Taking of the roll or any other necessary clerical work should be done by the teacher as quickly as possible. Then the lesson should begin. If the class does not line up as straight and orderly as the teacher would desire, it may be best to overlook most of the trouble. Disciplinary troubles are multiplied if the teacher stops and tries to arrange every pupil out of line and reprove every pupil doing something wrong. After the teacher and class are accustomed to each other, there is plenty of time to bear down on details. The teacher should start the class marching at once and get it into open order for exercises. Here again, little emphasis should be placed on precision of movement and proper execution of the exercises. Rather the teacher should be content to keep the class busy doing vigorous work for ten or fifteen minutes. A game should follow, suitable for the whole class to take part in, and in which there is plenty of activity.

C. Interest

This is the third point, and it is through interest that the class will eventually be held and the best results gained. Habit and activity will break a new class in and secure control, but interest is the method upon

which progress will depend. Interest is the thing that causes all of us to give attention and the greater the interest the greater the concentration of attention. If the teacher is going to be able to manage the class well, activities that are interesting must be chosen. This would seem very simple to accomplish. Academic teachers often think the Physical Education teacher's work is very easy, for the pupils like to play. A well rounded program in Physical Education, however, is not all play, and the many parts of the program, such as exercises, quick response activities, squad leaders, and inspections in hygiene with follow-up work are not play.

The enthusiasm the teacher shows is one way of aiding interest. Any class will respond at once if the teacher, with a smile on his face, starts the exercise with a lot of pep. With younger classes, if the teacher remarks that holding the arms sideward resembles shelves and if the shelves tip down, the dishes will fall off, the pupils' interest is stimulated.

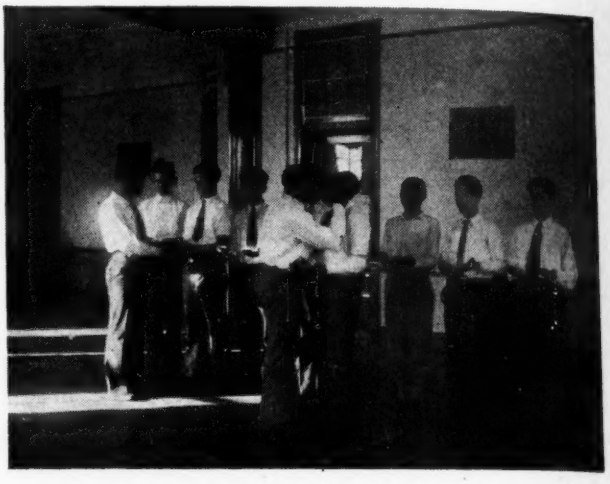
The playing game or singing game should not be too complicated, nor should it be too simple. It often seems that teachers do not give this type of pupil credit for being able to play higher types of games. Nothing is more out of place than trying to get an older class of boys and girls to play Looby Loo, Farmer in the Dell, or Cat and Mouse. They may be retarded mentally as to academic work, but they will soon tell you they don't care for small "kid" games.

If the teacher will give popular names to the teams playing either in the class period, or in after school leagues, interest will be stimulated. In the baseball season such names as "Athletics," "Giants," etc., or with smaller boys, such names as Tigers and Wildcats, have an appeal.

Nevertheless, the teacher of Physical Education does have many advantages in his work. It is true the backward and disciplinary child is more interested in doing things than reading, writing, or thinking about things. The previous experiences of this type of pupil have been motor, thus the motor activities of the Physical Education program are peculiarly suited to him. His interest is most easily aroused by presenting an activity in which he has ability. Curti[1] reports an experiment of R. S. Woodworth, in which Woodworth asserts that "an activity for which an individual is specially fitted is likely to be performed with spontaneity and zest, and to furnish its own drive." Accordingly in Special class work, the teacher must try to find out what is the ability of the child in various activities and arrange the activities so that the child will appreciate the possibilities of success in the activity for him.

This is one of the reasons for concentrating the Special classes in Centers, so the classes will consist of homogeneous groups. If the pupils in the same class are of nearly the same ability, the exercises, games, field and track events and other activities can be administered so that all will feel capable of doing the work. It has been suggested that in many events these pupils will not show interest because of fear. This is undoubtedly true. If the activity is new, the pupils will hesitate because they are afraid of those things of which they are in ignorance. If the activity requires courage as in apparatus work, the pupil will hesitate. I believe the statement of Woodworth covers this point, "If the activity is within the pupil's ability, he will show interest." There are exceptions to this rule where pupils, who are able, will not attempt to take part. This is usually the result of an emotional upset, the pupil being in a bad mood owing to some prior incident.

[1] Curti, M. W., "Child Psychology," Page 297.



Class in hygiene being inspected by squad leaders

2. INSTRUCTION

After the teacher and the class are accustomed to each other and the problem of management has been taken care of, the teacher will be able to give consideration to the problem of Instruction.

The main aim, as has been said before, is socialization. These pupils need to know how to get along with each other and to respect the rights of others. They are very individualistic and selfish. They are not able to control themselves. They have little respect for authority. They have many physical defects, such as lack of muscular coordination, noticeable in their walking, throwing, and inability to do complicated exercises. Their defects of sight, hearing, and teeth, are many, but these are usually taken care of by the Division of Medical Inspection.

They need a good Health program, because they usually come from homes where little hygiene is known or practiced. After they leave school these pupils must depend on their physical vigor and health for a livelihood, and thus should receive some basic instruction in health practices while in school.

The instruction in the Physical Education work is largely social whether it be exercises, quick response, games, or field and track events. The teacher is constantly pointing out the faults in behavior and attempting to have the class live in harmony with each other. The physical vigor of the class is aided by the whole program, which likewise helps to overcome the deficiency in the muscular coordinations. This deficiency is benefitted by quick response exercises also. A program of Health talks and inspections increases the pupils' knowledge of basic personal and community

hygiene. In the process of imparting instruction the teacher should understand that these pupils are lacking in general knowledge because of mental retardation and sensory defects. All our knowledge enters by means of the sensory organs; if sight, hearing and touch sense organs are defective, it means our knowledge will be defective. If the brain is so undeveloped as not to understand the sensations that filter into it, only a part of the sensations are retained, and the result is a low fund of knowledge.

The teacher must not expect too much at first. She must start with what the child has got and add a little. Many teachers, moreover, do not attempt to bring this type of child up to a sufficiently high standard. They feel that these are poor dull children who just can't be expected to do much (else, why are they in these classes?).. It is often difficult for these teachers to realize that although at first they must not expect much, these pupils can later be helped to accomplish much more than is usually expected. A very important problem is to find their capacity, so that the teacher may know when they are doing their best. One such way I have explained under "Field and Track with Age Standards."

One of the problems affecting instruction is the mixing of older boys and girls in the same class. Academically it may not make so much difference but in Physical Education work it does. These girls will not do their best when with the boys. It is difficult to have them buy or be supplied with bloomers, so most apparatus, field and track work, and many games are not entered into with full zest. The girls wear high heels and their best dresses, which is also not conducive to best results. Their attitude is usually affected by sex-consciousness, as they are thinking mostly about the boys present, who, being of their same social class, are often their "boy friends." The boys are somewhat affected by mixed classes, but not so much as the girls. One of the hardest problems for such mixed classes is the selection of games that are enjoyed by both boys and girls, and are suitable for them. Many schools with large enough numbers separate their oldest boys and girls, making one or two girls' classes. Other schools will split two of the largest classes taking all the girls from both groups for cooking and the boys from both for physical education.

In most of the schools, the grading of the various classes is according to academic or mental standing, and the standard of reading and arithmetic is most commonly used. The result is that a class may be nearly all of 4A academic ability, but the age range may be from 9 to 15. In isolated or ungraded classes the condition is much worse.

It is desirable to have few in the class, since there is more need of individual instruction and study, each pupil presenting a different type of problem. If a maximum enrollment of 22 is held, an average attendance of 18 or 19 will result. There is no doubt that better results would be gained academically if the classes were only 8 to 12 in size, but in physical education better organization results, in games and other activities, with 15 to 18 in a class. The time allotment for physical education varies in different places from 30 minutes to one hour each day. A five or six period day, of 40 or 45 minutes to a period, is very good. An eight period day of 30 minutes, or a four period day of 60 minutes each are both bad. The teacher cannot accomplish much in a 30 minute period besides having the added fatigue of handling 8 classes; while, in a 60 minute period, the pupils tire.

These pupils tire of any one thing quite easily, and there is no teaching value in long periods. Disciplinary problems multiply at such times. The plan of breaking physical education lessons up into three big subdivisions (exercises—quick response—informal activities such as games, field and track, etc.) does not allow them to tire and lose interest. The variety of the informal activity period from day to day has the same result.

In those parts of the lesson requiring drill, such as a new exercise, a dance step, a fundamental in a game (such as passing in Dodge Ball), or the practicing of a drill for an exhibition, the time spent on such drill must be short—5 to 10 minutes. But for the final mastery, a great many of these short drill periods must be taken.

The teacher must have all kinds of patience. Results come slowly; all sorts of irritating interruptions occur; the children cannot be relied upon; some little incident will cause a whole class to "go up in the air"; and the loss of patience by the teacher will only aggravate this condition. An even, cheerful disposition in the teacher will overcome many problems.

It is necessary to make careful preparation in Special class work, with skeleton outlines for a month in advance, and lesson plans in greater detail for a week in advance. Many teachers feel that less preparation is necessary, because of the old mistaken idea that these pupils cannot learn much anyway.

Music can be of the greatest help in the teaching of drills, dances, marching, and exercises. The Training School at Vineland, N. J., uses music in every class. Our Philadelphia schools use music to a considerable extent also. This type of pupil has a strong sense of rhythm, and many faulty muscular coordinations can be helped greatly by music.

Any kind of concrete example will be found of great aid in instruction, since these pupils are very weak in imagery. More hygiene can be taught in five minutes by the use of a bone or two, or even a chart, than by talking for an hour. The use of pictures, projects (such as drawing fruits) or scrap books, made by cutting out pictures about some subject as in hygiene, are other aids. The division of Visual Instruction in many cities is making great contributions. It is desirable to teach these pupils through as many senses as possible (eyes, ears, touch).

In normal pupils the use of the smaller muscles, as in the fingers and thumb, is a highly developed ability and comes after the larger muscle groups have been trained. In the Special class pupils this ability in the smaller muscle groups comes even more slowly, so that exercises using the larger muscle groups are best, espe-

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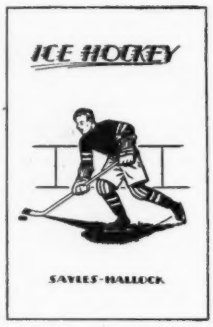

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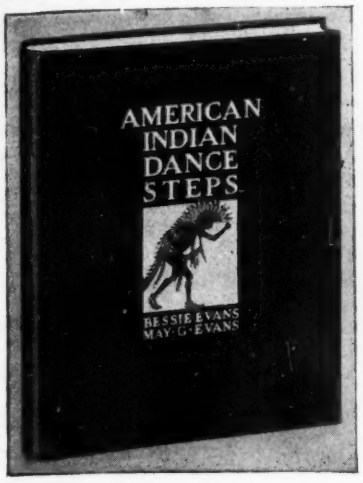

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cially at the start of the pupil's training. These pupils find difficulty with Indian club exercises for this reason.

In 1917 Meta Anderson,[2] supervisor of classes for defectives in Newark, N. J., stated, "The prime requisite to securing successful results from the teaching of Physical Training to the defective is a well trained teacher." That is just as true today. More is known today concerning the psychology and successful practical methods in special class education. The average special class teacher, however, does not make practical use of this knowledge. I would suggest the development and use of "Observation" and the making of studies of different kinds, such as 1. how many pupils in various classes do not care for certain activities?; 2. the relation of discipline and physical ability in various groups; 3. study of racial type response in various activities; 4. a study of the physical defects of individuals with the resulting response in various activities.

Health Education

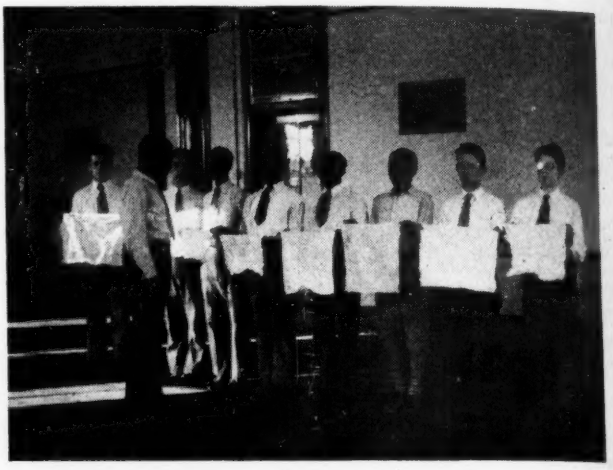
The health education program in Special schools should be stressed equally with the general physical education program but usually is not. The reasons for not emphasizing it may be:

1. The lack of information concerning fundamental knowledge in hygiene necessary to the children, and the right methods of presentation.
2. The lack of the teacher's training or experience in organizing and presenting a hygiene lesson.
3. The mentally retarded child does not take kindly to the ordinary academic presentation of hygiene used with normal pupils.

These children, however, need instruction and training in how to be healthy. Nearly every one of them has some physical defect, such as poor eyes, bad teeth, underweight, overweight, poor coordinations, faulty posture, etc. Many of these defects can be helped or remedied by observing proper health rules. In nearly every case home conditions are very bad. The parents do not know any more about healthy living than the children do. In many cases they are so poor they could not buy proper food anyway. Cheap school lunches and free milk for underweight pupils aid in such cases. Many sleep in one room at home with no open windows because they do not have any warm blankets. Garbage is thrown into the streets and alleys. One spigot supplies a whole row of houses with water, so extra water for a bath is not carried. The teacher must understand all these conditions in order to make the hygiene lesson practical and not idealistic. These children do not care to play out-of-doors when it is cold, nor do they show any desire to play in the sunshine on nice days. Their clothing is not warm enough for playing out on cold days, and they do not know the value of sunshine on either cold or warm days.

It is necessary that they know something about the most important factors of healthy living. They are not clever enough to succeed in later life by brain work. They will have to depend largely on their physical ability and vitality. They may be able to follow some trade they have been taught in school, but they will never be indispensable. Regularity on the job will be of the utmost importance. When they are absent a day or two they will be replaced with someone else. From a social viewpoint alone, this type of child needs whatever health instruction it is possible to give.

In all of the hygiene work for Special classes there should be three main aims: 1. To form good health habits; 2. To develop right attitudes; 3. To teach as much fundamental health knowledge as possible.



Class showing clean handkerchiefs to a squad leader in a hygiene class

METHODS OF CONDUCTING HYGIENE WORK

A health program for Special classes might consist of the following parts:

1. Medical Inspection and Nurses' work.
2. Incidental Teaching.
3. Inspections.
4. Hygiene lessons.
5. Health plays.
6. Showers.
7. Health Trophy Contests.

1. Medical Inspection and Nurses' Work

This usually is a part of every school's program and the remedial defects such as bad teeth, eyes, and posture, as well as skin conditions, are checked by the doctor; also the onset of communicable diseases, incipient tuberculosis, heart cases, etc. The visiting nurse follows up the doctor's recommendations, securing free dental and optical service where the home cannot pay. In larger cities there are several organizations whose object is to supply money for such cases.

2. Incidental Teaching

Incidental teaching should be given by every teacher in the school, not by the physical education teacher only. At all times every teacher should seize any opportunity to inculcate the right health habits. In

[2] Anderson, Meta, "Education of Defectives in the Public Schools." Page 66.

many school assemblies I have seen 20 to 30 pupils with fingers in their mouths. This could be remedied by concerted attack in every classroom. If a child has dirty hands or face he should be sent out of class to wash. All teachers incidentally can help in the inculcation of proper habits relative to sneezing, coughing, blowing the nose, etc. The school lunch periods can also be used to impress the lessons of cleanliness before eating, proper selection of foods, and cleanliness of the lunch room. In special classes this type of teaching is very necessary, to supplement the inability of the pupil to learn in other ways.

3. Inspections

Inspections should be of two kinds: a daily cursory inspection, and a weekly thorough inspection with follow-up activities. If every record-class teacher would make a daily inspection it would be a great help. But they do not! In fact, most physical education teachers do not even do it regularly. The daily inspection can be made in a very short time at the start of every class period by having squad leaders step forward and quickly inspect hair, face, ears, teeth, clothes, hands and shoes. All of these points need not be inspected every day, but half on alternate days. A point system giving credit for attaining a passing standard is often used, but this takes too much time for the daily inspection. Some teachers have pupils show a clean handkerchief or a pocket comb when taking the roll, and are able to work up a very desirable attitude and habit in that way. The short daily inspection keeps the pupils from thinking they need be clean only once a week for a weekly inspection, even though that inspection is given on unexpected days.

The weekly inspection should be of more detailed nature, and may justly occupy the whole of a class period. These pupils do not retain much in the way of health knowledge as given in academic form, and the development of health habits and attitudes is dependent largely on their actually doing and practicing right actions. Their learning is mostly motor learning. We may give any number of lessons on cleanliness, and have them answer correctly that they "should wash when dirty," but they *don't* do it.

I have found the following plan practical within certain limits. Schedule each class for a weekly inspection. It is often best not to take all classes on one day, for after the first class, word goes round and the succeeding classes have prepared for it. When the class lines up, have two squad leaders, (one a girl, if there are girls in the class) inspect their squad for: a—dirty hands, face, ears; b—unkempt hair; c—disorderly clothing; d—dirty finger nails; e—unshined shoes. Then, depending on the facilities available, attitude of principal or pupils, and disciplinary problems that arise, try to have every pupil correct any or every one of those five points that needs correcting.

For washing, there must be a wash basin available with soap and towels. Many special schools do not have this handy to the gymnasium, and disciplinary problems arise in sending individuals through the halls to other places. Soap containers are not always furnished, but many schools put the liquid soap in a bottle with a shaker cork, and give the bottle and half a paper towel to a pupil and send him to wash. I have seen some schools use the drinking trough in the yard for the purpose of washing when there was no wash bowl to use in the building.

For combing the hair most teachers have tried to have the pupils carry pocket combs. This is an educational process and is often aided by having pupils show a comb when the roll is called, or they are given points or stars for having a comb.

One or two finger nail files are not hard to obtain, and those whose finger nails are dirty are sent to clean them.

Some of the schools have a whisk broom included in the inspection equipment to aid the pupils having soiled clothing. In one school the pupils requested that this be added as part of their inspection equipment. Some centers have a club period Friday afternoons, and sew on buttons, patches, or mend tears in clothing as their activity.

The shining of shoes is generally a well-liked part of the inspection. Many of these boys shine shoes after school and like to do it in school. The shoe shine box is made in the shop, and the brushes bought from a school fund. The shoe paste can be bought from a school fund, be donated, or paid for by collections from pupils. The most successful method has been to charge a penny for those needing a shine. Those who keep their shoes in good condition are thus not taxed, and the others like to pay it, knowing that most people have to pay 5 or 10 cents. In one center the pupils bring all the paste necessary. The paying of a penny, of course, is not mandatory, and provision is made if the pupil cannot pay.

If this inspection with its follow-up activities is given regularly, there is a much greater likelihood of the development of practical health habits.

Charts are used a great deal in many schools. The teacher sets down a mark if the pupil says he took a bath, or slept with the windows open, or slept so many hours, or ate certain foods, or cleaned his teeth. The pupils, however, are apt to lie and the use of charts in that way encourages them to do so, and has absolutely no value at all, besides taking up a great deal of the teacher's time for the clerical work (which is often skipped for a week or two, and then the teacher eventually fills the chart in for a month at one time). Many charts which the teacher fills in after actual personal observation of the pupil are of benefit.

4. Hygiene Lessons

Hygiene lessons form a large part of the program of Health Education in regular grades, but owing to the mental retardation of the pupils and their dislike for academic work, they are relatively of less importance in special classes. The pupils should be taught the fundamentals about the body, how it works and how it should be treated. In order to make definite progress, the teacher will have to drill a great deal, in short lesson periods. Many schools have a short 10

to 12 minute hygiene lesson at the start of every class—others have three lessons a week, or two lessons a week of the same length.

The lesson should be presented in as simple a manner as possible. No technical names or terms should be used, and every lesson should be practical—suited to benefit the pupil in his environment. The same lesson topic can well be used for classes of either high or low mentality. The method of presenting it should conform with the type of class. If low, then the topic should be covered by stories, chalk talks, pictures, plays, and projects. If the class is high, more information can be imparted with a developmental type of lesson, using the question method to a great extent.

All lessons should be supplemented with any pictures, charts, specimens—such as bones, skeleton, etc. —that the teacher has available. These children learn by concrete example, and the more senses the pupils use in receiving the lesson, the greater is the possibility of its being retained. Thus a bone, a set of teeth, etc. that is seen, touched, and talked about makes a more lasting impression on their minds. Scrap books are valuable as a project. Select topics for different days, and have the class cut out pictures relating to that topic and paste them in the book; and then it is wise to follow with a short lesson about it. One school is using the poster method to a great extent. At the top, perhaps, is the picture of a football hero making a run. Underneath, other pictures are added of a boy cleaning his teeth. The teacher points out that that is probably the way that football hero washes his teeth. Other pictures relating to a main subject of cleanliness are added.

Following is a skeleton outline of monthly health topics with sub-topics to be used as weekly lesson topics. This outline has been arranged with the view of covering the fundamental knowledge essential to the pupils. As many of the topics as possible are applicable to the season of the year, such as "Rest" and "Sleep" in December, since we usually think of spending more time sleeping when the nights are longer, and many animals like the bear hibernate during the winter months. "Germs" are studied in March when colds and communicable diseases are more common; and "Fresh Air" and "Sunshine" in June, when it is easy for the pupil to practice the rules presented. Mr. W. A. Stecher, former Director of Physical and Health Education in the Philadelphia Schools, states[1] that there are four health fundamentals: food, air and sunshine, rest and sleep, and exercise and work. These are contained in the following schedule.

Health Topics for Hygiene Lessons in Special Classes

FIRST TERM

September

Study of the Body.
a. Skeleton
Lower, P. 93
Higher, P. 93
b. Muscles
Lower, P. 94
Higher, P. 94
c. Digestive System
Lower, P. 105
Higher, P. 105
d. Respiration and Circulation
Lower, P. 111, 122
Higher, P. 111, 122

October

Study of the Body.
a. Care of Mouth and Teeth
Lower, P. 105 W.L. 47
Higher, P. 105 W.L. 66
b. Care of Nose
Lower, P. 130 W.L. 48
Higher, P. 130 W.L. 67
c. Care of Ears
Lower, P. 52, 79, 130; W.L. 49
Higher, P. 52, 79, 130; W.L. 68
d. Care of Eyes
Lower, P. 51, 79, 129; W.L. 49
Higher, P. 51, 79, 129; W.L. 69.

November

Nutrition
Lower, W.L. 39, 40
Higher, W.L. 57, 58
a. Uses of different foods, diet selection
Lower, P. 27, 77, 78
Higher, P. 103, 104, 120
b. Eating habits
Lower, P. 26, 50, 86, 110
Higher, P. 110, 120
c. School Lunches
d. Care of Food
Lower, P. 104, 110, 121
Higher, P. 104, 110, 121

December

Rest and Sleep
Lower, W.L. 42
Higher, W.L.60
a. Need and Value of Rest
Lower, P. 25, 48, 70
Higher, P. 25, 48, 70
b. Rest During the Day
Lower, P. 25, 26, 50
Higher, P. 25, 26, 50
c. Length of Sleep and Regularity
Lower, P. 24, 48, 87
Higher, P. 24, 48, 87
d. Sleeping Conditions
Lower, P. 24, 48, 70
Higher, P. 24, 48, 70

January

Personal Cleanliness
a. The skin and hair
Lower, P. 12, 34, 60; W.L. 45
Higher, P. 12, 34, 60; W.L. 63, 64
b. Teeth, Nose, Mouth
Lower, P. 12, 15, 34, 37, 61, 64; W.L. 47, 48
Higher, P. 12, 15, 34, 37, 61, 64; W.L. 66, 67
c. Clothing
Lower, P. 17, 39, 65; W.L. 46
Higher, P. 17, 39, 65; W.L. 64
d. Elimination of waste
Lower, P. 16, 38, 65, 123; W.L. 44
Higher, P. 16, 38, 65, 123; W.L. 62

SECOND TERM

February

Environmental Cleanliness
Lower, W.L. 53, 54
Higher, W.L. 73, 74
a. School
Desks, books, rubbish
Lower, P. 17, 39, 40, 66, 120
Higher, P. 17, 39, 40, 66, 120
b. School
Spitting, toilets, Lunchroom
Lower, P. 17, 18, 40, 66, 120
Higher, P. 17, 18, 40, 66, 120
c. Home
Lower, P. 18, 40, 67
Higher, P. 18, 40, 67
d. Streets

March

Germs
Lower, W.L. 53, 54
Higher, W.L. 73, 74, 75
a. Nature of germs
Lower, P. 112
Higher, P. 112
b. Infections
c. Communicable diseases
d. Prevention of colds
Lower, P. 112
Higher, P. 112

April

Posture
Lower, W.L. 41, 42
Higher, W.L. 58, 59
a. Function of muscles and bones in posture
b. Good posture — standing, sitting, walking
At school; at home
Lower, P. 18, 19, 40, 41, 67, 68
Higher, P. 18, 19, 40, 41, 67, 68.
c. Aids to securing good posture
Play, clothing, diet, exercises
Lower, P. 20, 42, 69, 102
Higher, P. 20, 42, 69, 102
d. Value of good posture
Lower, P. 19, 41, 68
Higher, P. 19, 41, 68.

May

Safety and First Aid
Lower, W.L. 55, 56
Higher, W.L. 76, 77, 78
a. Street and school yard
Crossing streets, catching rides, playing rough and dangerous games
b. Home
Matches, gas, kerosene
c. In the country
Water — drinking, swimming, thin ice
Fire arms
d. First aid
Cuts, nose bleed, fainting, doctor

(Continued on page 44)

[1] Stecher, W. A., "Mind and Body," October, 1930, page 144.

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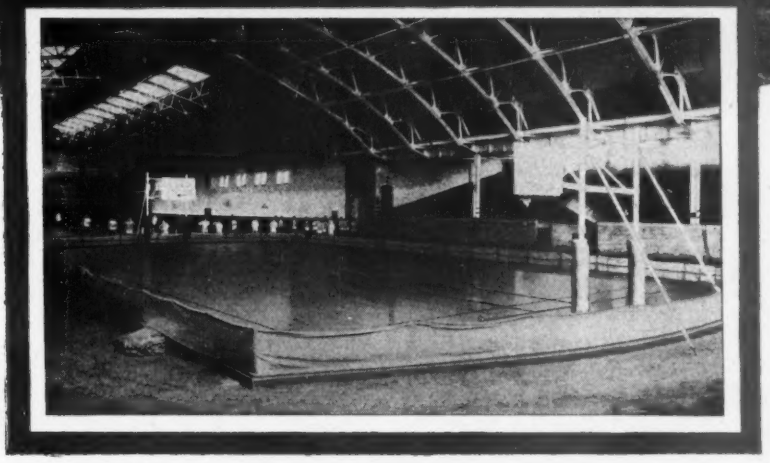

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THE PERFECT SEAL FOR WOOD FLOORS

Outlines for Girls' Basketball

By

GRACE HARTLEY

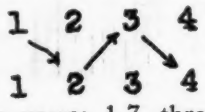
Director of Physical Education for Girls, Palo Alto Union High School, California.

A. Catching ball.
   1. Keep eyes on ball.
   2. Keep arms, hands and fingers relaxed, elbows bent.
   3. Have hands parallel.
   4. Slant fingers upward if ball is caught above waist and downward if caught below waist.
   5. Grip ball at moment of contact allowing arms and hands to "give" with the ball.
   6. Keep moving to receive ball.
   7. Run forward to meet the ball rather than backward.

B. Passing (general rules)
   1. Pass ball as quickly as possible from position in which ball is caught.
   2. Use short passes.
   3. Avoid throwing hard pass to oncoming teammate.
   4. Throw low, rather than high.
   5. Practice catching and passing in one continuous movement.
   6. Throw ahead of running teammate.
   7. Pass the ball waist high.
   8. Use pivot, feints, to avoid guard, then pass.

C. Kinds of Passes.
   1. Single under arm.
   2. Double under arm.
   3. One hand shoulder pass or "shot-put."
   4. Two hand shoulder pass.
   5. Single over-arm or hook pass.
   6. Chest pass.
   7. Push pass (combination of catch and pass).
   8. Side arm pass (ball snapped backward).
   9. Bounce pass.

D. Practice in passing and catching.
   1. Teacher-pupil formation, use passes 1-7 (C).
      a. Standing still.
      b. Running.
   2. Circle formation—1st throws to 2nd who pivots and throws to 3rd; use passes 1-7.
   3. Circle formation for pass 7. 1 receives ball, snaps it back to *2*, etc.
   4. Line formation, facing

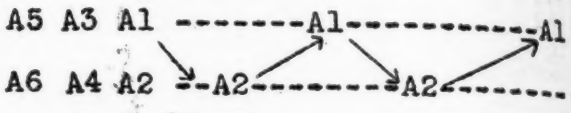


Line A.

Line B.

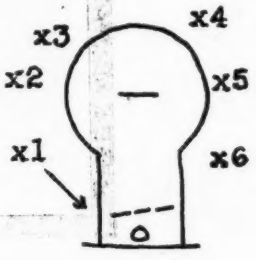
Use passes 1-7, throwing zigzag between the two lines. (Lines may compete for speed after accuracy has been attained.)

5. For bounce pass or single under-hand use line formation with guard. Player No. 2 in line A guards No. 1 in line B who uses bounce pass to Player No. 1 in line B; then Player No. 2 in line B guards No. 1 in her line who throws to No. 2 in line A who has stepped back into line.
6. Quick pass relay for passes 1-7. Teams in files behind line, two files for each team. A1 passes to A2 who has run forward. Team A.



(Emphasize rule that no steps may be taken while holding ball.)

7. Use same formation for passes combined with bounce or juggle, or pass and shoot relay for points. Score 2 points for each basket and 5 points for team finishing first.
8. Pass and shoot. (Use one pass or a combination of passes or use any pass with a pivot.) No. 1 shoots, recovers, passes to No. 6 who passes to No. 5 and so around to No. 2 who shoots. Each point scores according to scoring rules and the team which scores highest wins.



9. Play "overtake" Circle formation; teams numbered 1 and 2. 1's pass to 1's and 2's to 2's. When whistle blows reverse direction. When one ball overtakes other, team wins one point. Play for 2 out of 3 points.
10. Score rapid passing. Draw line 6 feet from wall. Throw from behind line any designated pass. Count number of passes in 30 seconds.
11. Count passes. (Page 51, Hillas and Knighton.)
12. Play the following games.
    a. Keep away, emphasizing one pass at a time. (Page 16, Fish.)
    b. Center catch ball. (Page 355, Bancroft.)
    c. Captain ball. (Page 338, Bancroft.)
    d. Tag ball, 2 or 3 in center.
    e. Corner spry. (Page 360, Bancroft.)
    f. End ball. (Page 20, Fish.)
    g. New York Captain Ball. (Appendix, Bancroft.)
    h. Newcomb. (Page 21, Fish.)
    i. Ninecourt Basket Ball. (Page 388, Bancroft.)
    j. Pin Ball. (Page 25, Fish.)

E. General Hints.
1. Play the ball, not the opponent.
2. Do not turn your back on the ball.
3. Do not commit fouls; it gives your opponents a chance to score a free point, perhaps two.
4. If out of bounds, play before opponents form a defense.
5. Do not try to play the game alone. Teamwork is more important.
6. Protect ball with your body.
7. Keep arms down when opponent has not the ball; avoid blocking.
8. Do not "bunch."
9. Run to unguarded side of teammate.
10. Be alert; be on your toes—not flat footed.
11. Keep free; stop, dodge, run.
12. Go to meet the pass.
13. Throw low, short, easy passes, chest high.
14. "Give" with the ball.
15. Follow your pass.
16. Jump for high balls.
17. Change quickly from offense to defense.
18. Use a feint to advantage.
19. Become familiar with all positions before specializing in one.
20. Use pivot, bounce, loop bounce, and juggle.

F. Hints for Pivot, Bounce, Loop bounce and Juggle.
1. Pivot.
   a. Keep your body between opponent and the ball.
   b. Pivot away from opponent, not into her.
   c. Make pivot rapidly, then pass or shoot quickly.
   d. Keep ball close to body.
2. Bounce.
   a. Bounce above knee and far enough away to progress.
   b. Use bounce to gain time when time for holding may be called or when teammate is guarded to allow her to get into position—otherwise pass rather than bounce.
   c. Use bounce pass when out of bounds or guarded. Hit floor near foot of opponent. Rebound should be waist high.
3. Loop bounce.
   a. Used to gain distance when in open.
   b. Keep body between opponent and ball.
4. Juggle.
   a. Use to pass over an opponent's head or to gain distance.
   b. Use underarm throw and toss high enough to pass well over opponent's upstretched arms.
5. Practice for Bounce, Loop bounce and Juggle.
   a. Use relay line formation described in section D, No. 4 above.
   b. Use line formation: No. 1 in line bounces ball across a 6 foot space, recovers, pivots and passes to No. 2 in same line.

(Continued on page 52)

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The Intramural Idea in Inter-school Competition

By

WILLARD L. NASH

Graduate Student, Teachers College, Columbia University, New York City.

THE intramural idea easily caught the imagination of educators and public alike. It has spread from the colleges to the high schools and many harassed Directors of Physical Education in some of the smaller schools have been groping with the principle of the idea, while still unable to put it into universal practice in their programs.

In schools with larger populations each class has a sufficient number to supply a class team for competition against the other classes. In the colleges this is feasible, for there the men are of mature enough age to permit the freshman to play against the senior. But in the high school there is often too great a disparity between age, height and weight in the various classes. Also the high schools, except in the larger cities, are handicapped because there are seldom enough in one class to make a team that would be comparable with that in the others. Or if the teams compared quite favorably there were generally many left over after the class teams were chosen, therefore, the program was still subject to the same criticism[1] of "over-emphasis" or "under-emphasis."

Riverdale Country School of New York City, in conjunction with several others of the Metropolitan area, became convinced that the intramural idea of class teams in addition to the Varsity and second teams could be used for competition within the walls of the school, and also that a graduated series of teams should be formed to play against like organized teams from other institutions. The Triangular League is now in its third year. Hackley School of Tarrytown and Storm King School of Cornwall-on-Hudson joined Riverdale in a plan of competition involving three teams in seven different sports throughout the year.

Baseball, track, tennis, football, soccer, basketball, and hockey provide the sports and the scoring of points toward the general cup to be won for the year is based on a schedule that makes the winning of second and third team contests equal in weight to the winning of the one first team game.

In addition to the points to be won from the sports competition, there is also a general contest in posture and growth measurement. Boys were measured by a neutral official, once in the fall and once in the spring, and graded. The school having the best average was awarded a certain number of points to count toward the cup. This latter part of the competition did not challenge the majority of the boys in two of the schools and it was not continued past the first year. A proposal is now being considered which it is hoped will bring in more general participation and will arouse the interest of the boys toward better achievement. This plan is an adaptation of the National Achievement Tests.[2]

League Mass Competition—Events, Points

FALL

Third Team

	Points
Football Goal Place Kick—45 ft., 2 out of 5	2-5
Catching place kick behind goal, 3 out of 5	3-5
Soccer goal kick—30 ft., 3 out of 5	3-5
Punting soccer ball, 1 pt. for each ten feet.	

First and Second Teams

Football goal kick—60 ft., 2 out of 5	2-5
Catching place kick behind goal, 3 out of 5	3-5
Soccer goal kick—40 ft., 3 out of 5	3-5
Punting soccer ball, 1 pt. for each ten feet	3-5

WINTER

Third Team

Basketball goal shooting, 5 in 25 secs.	2-5
Hockey goal shooting—20 ft., 2 out of 5	2-5
Potato race, 32 secs., 30 secs., 28 secs.	1-3-5
Volleyball serve—7 ft. net, 4 out of 10	2-5

First and Second Teams

Basketball goal shooting, 10 in 32 secs.	2-5
Basketball free throw, 4 out of 10 tries	2-5
Hockey goal shooting—30 ft., 2 out of 5	2-5
Volleyball serve—7 ft. net, 6 out of 10	3-5

SPRING

Third Team

Baseball target throw—25 ft., 4 out of 10	2-5
Tennis serve, 4 out of 10 tries	2-5
Running broad jump—12 ft. 6 in., 1 pt. for 6 in.	2-5
Running high jump—3 ft. 10 in., 1 pt. for 2 in.	2-5

First and Second Teams

Baseball target throw—30 ft., 4 out of 10	2-5
Tennis serve, 4 out of 10 tries	2-5
Running broad jump—13 ft., 1 pt. for 6 in.	2-5
Running high jump—4 ft. 2 in., 1 pt. for 2 in.	2-5

Note:—All boys in each school are to compete. The best 90 per cent are used in making the school average, and the school making the best average shall receive 24 points toward the winning of the cup. This means that the general competition is the equivalent of winning two major varsity games.

Anyone interested in the details of organization and rules of running the League will get a full statement in the article in Sportsmanship Magazine as noted above. One part of the plan which is not discussed at length in

[1] Athletic Emphasis, Where Should it Be Placed? Sportsmanship, March, 1930, Vol. 2, No. 6.

[2] National Physical Achievement Standards Committee, 315 Fourth Avenue, New York City.

that article and which has caused some correspondence is that of the classification chart used. The scale in use is quite similar to many that are in operation in various parts of the country. It is not unique. But it has been found very efficient in matching teams for the games.

Coefficient	Age	Height	Weight
3	8-8/11	45-47	43- 54
4	9-9/11	48-50	55- 64
5	10-10/11	51-53	65- 74
6	11-11/6	54-56	75- 84
7	11/7-11/11	57-59	85- 94
8	12-12/11	60-62	95-104
9	13-13/11	63-65	105-119
10	14-14/11	66-68	120-129
11	15-15/7	69-70	130-139
12	15/8-16/3	71-72	140-149
13	16/4-17	73-74	150-159

For example: Take a boy 15 years, 3 months of age, 67 inches tall, who weighs 143 pounds. It is simple to run down the various columns and get his coefficient for each of these. In age he scores 11 points, height 10, and weight 12. Adding these together gives this boy a classification coefficient of 33. This then means that he is eligible to compete in the team which has that coefficient in its range.

The League classification for teams was 15; varsity unlimited; second team above 35; third team 34 and below. Other teams which have competed in a Junior League at Riverdale, Lincoln, and Fieldston Schools of New York City are classed above 30, 29-25, 24-20, and below 20.

Using this form of classification and by means of the various leagues and combinations of schools willing to use this system, the goals set up for the program can be met even in a small school:

1. Each boy in a form of daily recreative exercise.
2. Each boy, health conditions permitting, a member of some team.
3. Each team enjoying wholesome competition with other teams.
4. Each team under the coaching of some master who is giving his personal attention to the developing of fundamental skills, team morale, and sportsmanship.
5. Each team so graded as to age, height, and weight that no one member of any team will be placed at a disadvantage.

Fun in Finland

(Continued from page 7)

money with which to buy balls and other equipment. The physical education teachers receive smaller salaries than the regular class room teachers. Ninety to one hundred dollars a month is the average amount.

It was with some reluctance that we left this very friendly group of Finnish young women. Their hospitality and courtesy were so genuine that we felt we had made some real friends in a far away land. As we left Tanhuvaara all the campers gathered at the dock and after presenting each of us with a red rose, they sang songs until we were out of sight.

Great Exercise...
Great Sport.....
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IT MAY INTEREST YOU TO KNOW

MISS Katherine Krieg has been appointed the successor of the late Miss Margaret McKee as Superintendent of Recreation at Des Moines, Iowa. Miss Krieg is a graduate of the University of Nebraska.

A REGRETTABLE error appeared in the article by David P. Willoughby entitled "How Much Faster Can Sprinters Travel?" in the November issue of the JOURNAL. On page 36, column two, line 15, the sentence should have read "So are the professional records of 7.2 seconds for 7 5 yards (made by A. B. Postle of Australia, in 1906), and 12.0 seconds for 130 (instead of 75) yards (made by J. Donaldson of Australia, in 1911.)"

THE following speakers have accepted a place on the program at the annual Sportsmanship Brotherhood luncheon at the Town Hall Club, New York City, on Monday, December 28: Dr. Harry Emerson Fosdick, pastor of the Riverside Church, New York City; Walter Okeson, Commissioner of Football Officials; and Dr. Carl Fischer of Budapest, Hungary, who is vice president of the International Football Association.

THE December program of the Wingate Memorial Lectures is as follows: December 5, Dr. Joseph E. Raycroft, Dean of Physical Education, Princeton University on "The Difference between High School and College Athletics"; December 12, William R. Crowley, veteran official, "Fundamentals of Sound Officiating"; December 19, Dr. James Naismith, University of Kansas, (inventor of basketball) "Basketball." A fifteen minute summary of each two-hour lecture-demonstration will be broadcast each Saturday from 12:45 to 1 p. m., Eastern Standard time, over 54 stations of the Columbia network. A full printed record of each two-hour lecture and demonstration may be secured at cost (not more than 15c) from the Wingate Memorial Foundation.

THE Mid-West Convention will be held March 30-April 2, 1932, at the DeshlerWallich Hotel, Columbus, Ohio.

THE Detroit Health Education Club is conducting an interesting series of luncheon programs, as follows: October 10, Dr. D. Oberteuffer, Supervisor of Health and Physical Education of Ohio, spoke on "Health Education and Government." December 5, Miss Mary C. Coleman, Professor of Physical Education, North Carolina College for Women, will spoke on "Education and the Sports Business." February 6, Dr. Raymond Franzen, of the American Child Health Association, will speak—his subject will be announced later. April 23, Dr. Stuart Courtis, Educational Consultant of Detroit Public Schools, will speak on "Comparison of Physical Education Development of American and Foreign Children." The officers of the club are: President, A. W. Myers, Vice President, Florence Smith, Secretary, Brigetta Wenzel, and Treasurer, Leo Spencer.

THE Iowa Physical Education Association has elected the following officers for the year 1931-1932: President, H. Otopalik, Ames, Iowa; Vice-President, Theodore Fitzsimmons, Council Bluffs, Iowa; Vice-President, Thelma Short, Cedar Falls, Iowa; Secretary, Martha Prior, Sac City, Iowa; Treasurer, Karl Greenlee, Des Moines, Iowa.

OWING to a conflict, the Southern Section of the American Physical Education Association has changed its Convention dates. It will meet in Jacksonville, Florida, March 30th to April 1st inclusive. The meeting will be held in conjunction with that of the Florida Education Association in order to obtain reduced railroad rates.

THE Nebraska Physical Education Association has been organized, with the following officers: President, Harold Lauritsen, Director of Physical Education for Boys, High School, Lincoln; Vice-President, Miss LaDica Fitch, Scottsbluff; Secretary, Clyde Knapp, Fremont.

THE Maine Physical Education Association has been organized, with the following officers: President, Roland Cobb; First Vice-President, Mrs. Grace C. Howard; Second Vice-President, Daniel Coady; Secretary-Treasurer, Miss Desmond.

THE Kansas Physical Education Association held its annual meeting on November 5, at which the following officers were elected: President, L. P. Washburn, Manhattan, Kansas; First Vice-President, Merle Henri, Kansas City, Kansas; Second Vice-President, Miss Irma Gene Nevins, Pittsburg, Kansas; Secretary-Treasurer, Miss Edna McCullough, Emporia, Kansas.

THE new officers of the Missouri State Society are as follows: President, Alfred O. Anderson, Director of Health and Physical Education, Kansas City, Missouri; Vice-President, Miss Ume Chaplin, Director of Girls' Physical Education, State Teachers College, Cape Girardeau, Missouri; Secretary-Treasurer, Henry E. Detherage, State Director of Health and Physical Education, Jefferson City, Missouri.

A SUB-COMMITTEE of the President's Organization on Unemployment Relief, called the Committee on Employment Plans and Suggestions (Mr. Harry A. Wheeler of Chicago, Chairman) has published an interesting report of its work. Copies of this report may be obtained by writing to the office of the committee at 1734 New York Avenue, N.W., Washington, D.C.

THE November, 1931, issue of the *Journal of Social Hygiene* contains an article on "The Status of Sex Education in the Colleges." Reprints of this article may be obtained from the American Social Hygiene Association, 450 Seventh Avenue, New York, N.Y.

A UNIQUE enterprise, The Ann J. Kellogg School, Battle Creek, Michigan, was dedicated on November 21st. This school actually embodies the aims set forth by the White House Conference on Child Health and Protection. The object of the school is to provide normal free association of the handicapped with the normal children, such as in life itself. It is a part of the public school system made possible by the gift of W. K. Kellogg through cooperation with the Board of Education. Dr. Kellogg named the school for his mother, who was a pioneer teacher in this locality.

The chief concern of the school is the program of the individual child. This applies to the teaching of the normal child as well as the handicapped. Supervisors are constantly watching to see which child, class or school needs additional attention in the fundamental subjects. Part of the day goes for education and part for treatment, at the hands of skilled nurses.

The buildings are fully and scientifically equipped with solariums. swimming pool for crippled children, cafeteria, large gymnasium with equipment for normal and "special" children, a library, schoolrooms that taper off into "houses" (special "gingerbread house" for the smaller children) and teachers especially trained for this unusual type of instruction.

THE new officers of the New Jersey Physical Education Society are as follows: President, Miss Eliza J. Foulke, Senior High School, Atlantic City; Vice-President, John H. Sheps, Board of Education, Newark; Secretary, Miss Mazie V. Scanlan, Administration Building, Atlantic City; Treasurer, George Henckel, High School, East Orange.

THE Department of Physical Education of the Young Men's Christian Association for Massachusetts and Rhode Island has recently published an attractive handbook containing information concerning its organization and program of activities. Mr. C. L. Listman, 167 Tremont Street, Boston, Massachusetts, is the editor.

Recreation for Adults

(Continued from page 16)

the original savage does when he has the wherewithal, so all holidays as Thanksgiving, Christmas and New Years, fairs and carnivals tend to become feast days for eating and drinking.

One may not rebuild depleted energies by continuous attendance at a movie or opera. There is no vacation like a trip to the woods or to some well stocked stream. If we may wander at will through the byways of the forest or by the side of the brook, and let its myriad sensations rain in on every sense, when the sky is blue and the mosquitos have "gone west," and sit with friends around the campfire at night, we have found nature's poultice for the sores of the spirit. A million savage ancestors shout within us at the return to the wild.

BACK COPIES

The demand for back copies of the Journal for the months listed below has not yet been met in full. We are appealing to members who have copies of these issues which are no longer needed to send them in. 30 cents for each copy of "Health and Physical Education" for February, 1931, January 1931, and October and December, 1930, will be paid when they are received at the address below. We simply ask that they be wrapped securely or put in a large, heavy envelope. American Physical Education Association, Box. 362, Ann Arbor, Michigan.

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ARTHUR H STEINHAUS

Professor of Physiology and Director of the Y.M.C.A. College Laboratory for Physiologic Research in Physical Education, Chicago

12. The Heart Size—Effects of Training

The series of which this article is one is an attempt to present and interpret to physical educators the results of some recent researches in Physiology which to the writer seem of importance to Physical Education. The articles cannot lay claim to scientific thoroughness. They must rely on their simplicity and essential accuracy to commend them to the reader. The bibliographical references should serve as starting points for any who desire to equip themselves with fuller information.

IN the two previous papers I have briefly discussed the effects of exercise on the heart during and immediately after exercise. A question of even greater interest to most of us concerns itself with the long term, or chronic effects of exercise. Such questions are these: Do athletes develop enlarged hearts? What happens to an athlete's heart later on in life? The literature in this field is overwhelmingly large. Podkaminsky (1929) cites about 400 papers related to this subject. There is also a great deal of difference of opinion. Some say the athlete's heart becomes larger and heavier, i.e., true hypertrophy (Herxheimer). Others say it becomes larger due to greater time for relaxation, and therefore greater filling between beats, in the slower hearts of athletes (Deutsch & Kauf). Still others claim that only in rare cases is there any enlargement whatever (Rautmann).

Another question which presents itself is this: If there is hypertrophy of the heart, is this paralleled by a similar and comparable hypertrophy of the body musculature, or does exercise in any way single out the heart for hypertrophy? The problem has been approached from various angles: (1) a number of workers have compared wild animals with their domesticated relatives to find that in wild animals a higher percentage of the body weight was devoted to heart weight. Thus, for example, Grober (1907) found such a relation between the hearts of wild and hutch rabbits, and Kulbs (1912) found that the heart weight of wild rabbits after being caged approached that of the tame rabbits. Hermann (1926) killed a number of racing greyhounds and found that they had much larger heart weight to body weight ratios than have ordinary mongrels. He also found the largest hearts in the most successful racers.

(2) Other workers, notably Kulbs (1906) and Thorner (1930), exercised some dogs while litter-mates served as unexercised controls. Upon autopsy it was found that the exercised dogs had larger and heavier hearts. Hatai (1915), Secher (1921), and Borovansky (1930), discovered similar facts on rats. In 1923, Secher trained twenty-two rats by daily running in a drum and then, after retiring them, he started to kill a few at a time at intervals of about a week. In those killed immediately the heart weight constituted 5-6 per cent of the body weight. This percentage decreased until those that were killed on the 48th day showed normal values of 3.3 to 3.6 per cent. This is the first demonstration of regression of experimentally induced cardiac hypertrophy. In our laboratory at the Y.M.C.A. College we have just finished a two-year study of this problem on growing dogs. (In press.) In all we used eighteen puppies. Some were exercised by running, others by swimming, while still others did nothing. From X-ray pictures taken at two-week intervals and from heart weights at autopsy, we were able to show that the heart begins to enlarge from three to five weeks after exercising begins and that this enlargement is a true hypertrophy, as evidenced by greater heart weights. We found also that when exercise is discontinued, the heart tends to regress toward more normal size. On this point there are still many questions in our minds.

(3) Still other workers, notably Rautmann (1924), Deutsch and Kauf (1927), Podkaminsky (1929), Herxheimer (1922, 1923, and 1929), Eimer (1928), and Eyster (1930), have examined the hearts of human beings. In this group of clinical observers there is no consensus of opinion, in fact there are at times heated attacks and counter attacks. Herxheimer (1924) has presented a theory which he believes serves to bring the contradictory observations together. His view is that exercises of strength, speed, or big effort, induce hypertrophy of the skeletal muscles and only to a small extent increase the heart mass, whereas exercises of endurance lead to heart hypertrophy leaving the skeletal muscles unchanged in size. In support of this view he has collected a vast amount of data from all kinds of athletes classified according to their sport specialty. His data show the largest hearts in proportion to body weight in marathon runners, six-day cyclists, and oarsmen, and the smallest hearts in Decathlon contestants and sprinters. The fact that laboratory animals are always exercised by distance running would explain why the results from this angle have been so consistent.

Ackermann (1927), and Purjesz et al (1930), have observed some cardiac enlargement in boys and men whom they studied before and after a training season for rowing and certain athletic events.

All in all the view seems warranted that certain forms of sport, notably endurance running, leads to a physiological cardiac hypertrophy which makes the heart more efficient to perform its task and which tends to disappear or regress with the cessation of training. Such a heart is not to be considered pathological in any sense of the word. It is probably unnecessary to state that all reference here made has been to healthy hearts. A heart that is already laboring under handicap of some infection would probably respond to exercise in a less desirable manner. Dilation would be the more likely effect of the added strain of exercise on an impaired cardiac musculature. Such a condition has sometimes erroneously been called "athletes' heart."

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The Outlook for Athletics

(Continued from page 9)

lessons in self control, team work and sportsmanship, but in continuing active effect its influence is limited. On the other hand, tennis, golf, swimming, fencing, if properly mastered in college, will be sources of enjoyment for many years after undergraduate days are over. It would appear to be the part of educational efficiency then for a college to elevate some of these minor sports to a place of major importance; and to give every student an opportunity to go out and become expert in some game that he will continue to play for many years.

There are two situations in the life into which the college graduate is to go that justify some of my beliefs as to what a college should do to be athletically effective. And the first of these is the leisure time problem in present day America. With the working day and the working week constantly contracting it becomes more and more evident that the future welfare of America is as much dependent upon our use of leisure hours as our use of working hours. Nations before us have started their downward course when the craze for degenerating amusement led to softness and decay. Only that man is truly equipped for life who has within himself resources for filling his leisure hours with stimulating things; who does not have to have someone to amuse him; who is above the necessity for commercialized recreation. The college which sends the largest proportion of its students out with the desire and the skill to play is doing a real educational job.

Again, the international situation is increasingly critical. Peace will only be maintained by friendships, by mingling of men of different nations in mutually interesting things. Sport is one of the great common meeting grounds. The Olympics have far more significance than mere athletic competition. Many international misunderstandings have been smoothed out on the Saint Andrews links. True sportsmen of whatever nation understand each other, and in politics as on the field, will play the game fairly. The American College does not need *less* athletics but *more;* more from the standpoint of general participation, of high sportsmanship, of real courage. And she needs this because the future welfare of our nation rests so largely on her use of leisure time and on her wise and sympathetic handling of international affairs.

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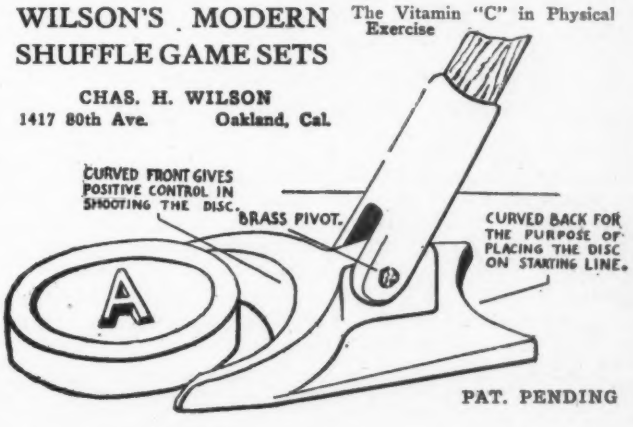
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PAT. PENDING

Physical Education in Special Classes

(Continued from page 34)

June

Fresh air and sunshine
Lower, W.L. 43, 44
Higher, W.L. 62

a. Need of fresh air
Schoolroom, living room, bedroom
Lower, P. 25
Higher, P. 25

b. Ventilation and temperature
Lower, P. 122
Higher, P. 122

c. Value of sunshine
Lower, P. 76
Higher, P. 76

d. Play in fresh air and sunshine
Lower, P. 26, 49, 87
Higher, P. 26, 49, 87

Lower—means assignments for classes of lower mentality.
Higher—means assignments for classes of higher mentality.
Numbers after P refer to pages in the Philadelphia Course of Study in Health Education for grades 1 to 6.[1]
Numbers after W.L. refer to pages in Wood-Lerrigo's "Health Behavior."[2]

Since the lesson periods are short, the teacher can use the same sub-topic for a whole week, developing new aspects of the topic and repeating or drilling on the part previously taught. A long hygiene period of 40 to 50 minutes has been tried in some schools but is satisfactory with only the very highest intelligence groups.

In teaching hygiene to the higher groups, the teacher should prepare a plan for each lesson. Of the various types of lesson plans, such as developmental, review, drill, textbook, and project, the "developmental" is the most useful. The "review" and "drill" type of lesson should be used, but, inasmuch as the lesson period should be short, the objectives of these types of lessons can be attained in the "approach" and "conclusion" respectively, of the developmental type. Special class pupils need review and drill. If one topic is kept for a week as suggested in the outline, and two or three lessons are taught in a week to each class, the second and third lessons may be review and drill lessons, on the same topic.

Following is a sample developmental lesson outlined in more detail, and showing the kind of lesson plan the teacher should prepare for each of the lessons. The first sub-topic under September is used for the sample lesson.

Health Education Special Classes

SAMPLE DEVELOPMENTAL LESSON

Topic—The Skeleton (Sub-topic (a) of Study of the Body)

Teachers' References: "Philadelphia Course of Study in Health Education for Grades 1-6," page 93. Burkard, Chambers, Maroney—"Health Habits," Book No. 2, pages 1-5. O'Shea & Kellog—"Health Habits," pages 15-18, 39-43. Newmayer and Broome—"The Human Body and Its Care," pages 38-43.

Materials: Any bone (animal or human); a chart or picture of a skeleton; a skeleton if possible. Pictures of the framework of a building that is being built.

[1] Philadelphia Board of Education, "Course of Study in Health Education for Grades 1-6."
[2] Wood-Lerrigo, "Health Behavior."

I. Aim
General—To show the pupils the relation of the skeleton to the rest of the body, in a study of the main parts of the body.
Specific—To give fundamental knowledge about the skeleton as a background for further lessons in hygiene.

II. Content
A. The skeleton
1. Parts of skeleton
a. Head
b. Trunk
c. Limbs
2. Physical characteristics
a. Bones are soft in babies
b. Bones are hard in adults
c. Bones are long, short, flat, curved, in different parts of the skeleton
3. Functions of skeleton
a. Support
b. Protection
c. Motion

III. Method—(for higher intelligence groups)
A. Approach
1. Tell a story about any building that is being built in the vicinity.
2. Show some pictures of the framework of houses under construction.
3. Have some of the pupils draw some pictures on the board of the framework of buildings, chassis of an automobile, and outline of a boat showing the pilothouse.

B. Development.
1. Discuss the body as a building. Show some pictures of a skeleton, or draw some on the board. Call attention to the similarity of the foundation of the building to the legs of the body; of the framework to the trunk. Show the pictures of the auto chassis and boat, and compare the windshield and pilothouse with the head of the body.
2. Ask questions as to which parts of the building, or chassis, is constructed of the strongest and largest pieces of material, thus comparing the foundation and floor I beams with the long and strong bones of the thighs. Continue the simile into the main framework, as compared with the trunk, and show further the use of the curved bones in the ribs, flat bones in chest, etc. Point out how green timber will bend, while too dry lumber may break.
3. Show how the framework of the house when done, holds the furniture, with pictures on the wall, and how some parts of the body like stomach, heart, etc., are hung on our framework. People live inside houses and are protected from cold and intrusion by undesired things, such as animals and people. We live inside our framework. Our brain, stomach, heart, lungs, are some of the organs that mean life to us, that are protected inside this framework. The wheels of an automobile make it possible for it to run—and our legs and arms make it possible for us to move. Our legs and arms move when the muscles which are attached to them pull them, like the spring on a screen door pulls the door. The joints between the bones act like the hinges on the door.

C. Conclusion
1. Go over quickly similar parts of framework of a house and the skeleton.
2. Point out parts on drawings on board, or chart, or skeleton.
3. Review physical characteristics of bones.
4. Repeat functions of the skeleton.
5. Note that motion is caused by muscles pulling on bones. This will serve as a connecting link for the approach of the next lesson on Muscles.

5. Health Plays

Health plays are used a great deal and prove an interesting and educational form for giving health knowledge and creating health attitudes. The teacher may develop a topic as a health play either for the classroom or assembly. Often, organizations, such as the Dairy Council, Insurance Companies, etc., send out workers who train the pupils for little health plays. Such workers do most of the talking, so it is comparatively easy for the pupils to act out a smaller part and say a few words.

6. Showers

Showers should be part of the equipment of every special center. The pupils take very few baths at home, because their homes lack facilities and because the pupils or their families do not have the right attitude towards cleanliness or the habit of taking baths. The school must be responsible for developing the right attitude and habit. Perhaps the greatest trouble with special class children from a health standpoint is their lack of cleanliness. Our schools should have better facilities to make the pupils cleaner. There should be a wash bowl on every floor. Often there is one in a teachers' room or the office, and in the shop, but none can be used in a general way. We cannot say, "wash your hands after going to the toilet, and before eating," because they cannot possibly follow the advice. Paper towels are also often so limited as to make cleanliness hard to accomplish.

Schools with shower facilities schedule one or two classes a day, so that all classes get a shower once a week. A 15 to 20 minute period is long enough for a class of 18-25, where five to seven can get under the showers at once. Locker, hooks, or boxes serve as receptacles for the clothing while the class is in the showers. The dressing room adjoins the showers so the teacher can supervise both at the same time. Several bars of soap are passed around. Towels are furnished by the Board of Education, which also pays for the laundering of them.

I have observed that there is no social problem in having negro and white boys in the showers at the same time. It is often difficult to get the pupils to take showers. They are afraid of anything they do not know much about, and many complain of aches or cuts to escape the shower. After a few times they usually do not object.

7. Health Trophy Contests

A Health Trophy contest among all the special schools will aid in motivating the program and act as a survey of the work in the schools as well. In the Philadelphia schools we have this contest. Six things are measured in every school during the year—vigor, personal cleanliness, posture, physical defects remedied, school cleanliness, and health knowledge.

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In the personal cleanliness and posture test, there is some chance for variation in judgment, but if the same teacher examines all the schools and has enough experience to form a correct standard, it is fair for all the schools.

If the school system has visiting "good housekeepers," the various schools can be rated by them for school cleanliness, or by a committee from non-competing schools.

The division of Medical Inspection, in its regular routine examination, lists the number of remediable physical defects in each school. Later, another survey is made to see how many have remedied the defects, and the school's rating is established for that point. Such remediable defects are bad teeth, need of glasses to correct poor eyesight, certain postural defects, etc.

A Health Information survey test can be given, based on the pupils' fundamental knowledge. The skeleton outline of health topics given above should serve as the basis for such a survey test. No health information test was given to the special schools last year in Philadelphia, but may be given this year.

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Western Conference Football Strategy

(Continued from page 21)

The forward pass defense for the 1931 season has been strictly a zone defense, and I feel that with the standardization of the six man line that the zone defense on passes will also become the standard defense. It is true, of course, that certain special defenses have been developed to meet certain types of passing attack, and under these conditions occasionally there is a man to man defense for this particular formation. I do not know that I, personally, agree on the strict zone defense, for I feel that every attack must be considered, and defenses thrown up to meet that particular attack. This is particularly true against a good passing team having fast men as receivers, and where the long spot pass is used. The criticism that I have noted particularly during the past season on this zone defense is the fact that the defensive backs watched the ball too long and have permitted many passes to be completed. There are times when the defensive back should pick up the man in his zone early and stay with him until the ball is in the air.

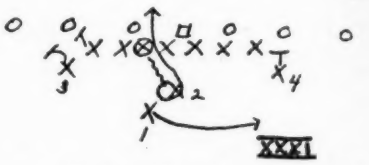


Diagram No. 31 shows a spinner play by the No. 2 back from the double wingback formation. The ball is snapped from the center to the No. 2 back who spins to his left and fakes the ball to the No. 1 back, completes his spin, and hits on the strong side of center.

On forward pass defense, where the 6-2-2-1 defense is used, ends, tackles, and guards usually rush the passer hard. The two front backs cover flat territory on their respective sides. The two backs farther back on defense cover deep men. The safety man plays the ball to either side back, and quite often comes up to help out on the short pass in front of him. The center usually drops straight back and covers a point about twelve yards back of center. Sometimes on the strong side the strong side guard has come out and helped to cover flat, or directly back of his position.

During the past season, where the seven man line and the diamond defense of backs has been used on defending passes, the ends have been dropped back to cover flat passes on their respective sides; the fullback has dropped back about twelve yards back of his strong side defensive tackle; the two deep backs cover the down and out runners; the safety man plays the ball or the long man down; and the center drops back and slightly to the weak side. The tackles and guards rush the passer. In some instances under this defense the ends have been sent in to rush the passer, the weak side guard has been covering flat to the weak side, the strong side guard has covered flat to the strong side, and the fullback has covered back of center; or this may be reversed with the fullback covering flat on the strong side, and the strong side guard dropping straight back. On sure passes, or passes that develop early, the first defense that I have mentioned here, with the ends dropping back, seems to be the much better type of defense.

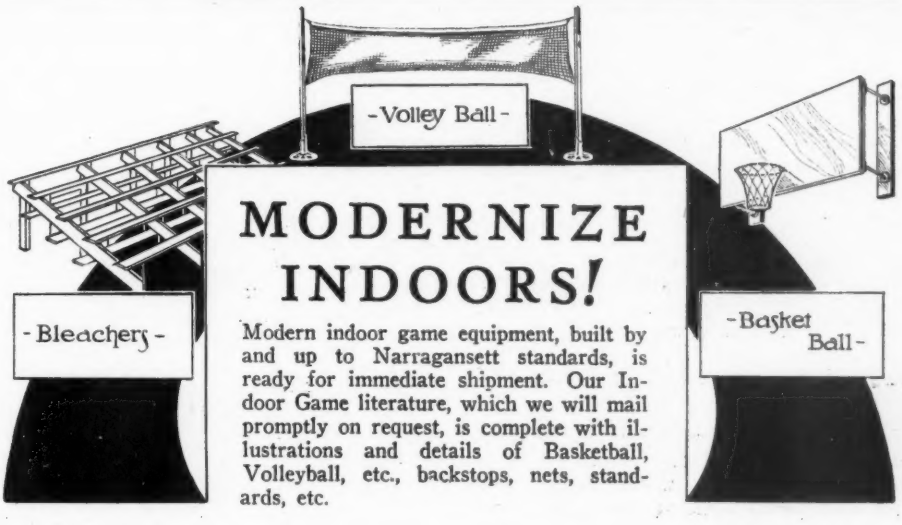
On forward pass defense, with the seven man line and the box defense of backs, there is also a slight tendency for the ends to hold up a little and cover flat territory. Where this is done the front line of backs will cover both flat and deep. The second line of backs cover deep men or play the ball, and usually the center drops directly back and zones back of center. The

weakness in the box defense is the fact that the second line of backs can easily be pulled out of position by down and out runners, leaving the zone down the middle unprotected. To meet this situation the weak side end certainly would have to zone flat, giving the weak side first line back an opportunity to zone deep or take the down runner. In this way the weak side deep back might be held to cover the runner down the middle.

Possibly the fact that there has been more deep passing this year has been because the passer has been better protected by having the two guards drop out and also by having one back stay in for protection. Rushing the passer has been a very effective means employed by some teams during the past season as a method of pass defense.

The 1931 season has not shown any special type of defenses for the blocking of kicks as compared with 1930. It has seemed quite noticeable, however, that on an actual kick there has been more aggressive rushing of the kicker by the tackles and ends. This has been particularly true of the weak side end. The kicker has been rushed hard, especially when back on his own territory. Once in a while it was noticed that an end would drop back and attempt to spike his end early. Sometimes, too, the center would drop back about three yards and spike the first lineman that attempted to go down under the punt. It has been particularly noticeable during the past season that defensive backs have not been effective in spiking the ends coming down under punts. Some backs have attempted to spike early, while others trailed the ends well down the field and attempted to spike as the ends slowed up to make the tackle. In some instances defenses on the kick for point after touchdown have shown an eight man line.

In the comparison of this review with that of 1930, there are no radical outstanding changes in either offense or defense, yet there has been a definite improvement on certain phases of the modern attack. As we brought out earlier in the review the past season has been given over largely to offensive play. There has been improvement in the running attack, a development of spinners, an advanced development of the forward pass behind the line, and a development of the forward pass with the lateral from the same play, an improvement on long passing, a decided improvement in kicking, and certainly better employment of strategy in relation to the best use of the modern phases of the game. Offense has been stressed over defense, yet defense has not been entirely neglected. The defense during the past season has shown that it must be developed to meet the more open forms of attack, and this has resulted largely in the 6-2-2-1 defense. There has been resourcefulness shown in the building of defenses, yet the defense of the past season has hardly been able to offset the increased offensive strength. This may be due largely to the fact that the offense has been stressed over that of the defense, or that the improvement on certain phases of attack could hardly be successfully met in one season of play. Another year may show a decided improvement in defensive strength.



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H. H. House who for many years has been identified with the Washington State College at Pullman is now at New York University taking his Doctor's Degree.

* * *

Dr. Elwood Davis who recently got his degree at Teachers College is now at Penn State.

* * *

Tucker Jones is developing a major course in playground and recreation at Williams & Mary College.

* * *

The Officers and Executive Committee of the Michigan Physical Education Association for 1930-31 are:

Ethel Rockwell—President, Director of Physical Education, Public Schools, Kalamazoo.

Ethel McCormick—Secretary-Treasurer, University of Michigan, Ann Arbor.

W. Guy Morrison—Vice-President, Director of Physical and Health Education, Public Schools, Grand Rapids.

A. W. Thompson—State Director of Physical and Health Education, Department of Public Instruction, Lansing.

Lera B. Curtis—Ass't. State Director of Physical and Health Education, Department of Public Instruction, Lansing.

Crystal Worner—Department of Physical Education, Western State Teachers College, Kalamazoo.

* * *

The officers of the Women's Division of the National Amateur Athletic Association have been moved from 370 Seventh Avenue to 303 West 42nd Street, New York City.

* * *

The Pennsylvania Interscholastic Athletic Association has made the following important rule in regard to coaches:—

(To Become Effective 1931)

All member senior and junior high school teams shall be coached and directed by teachers regularly certified by the State Department of Public Instruction. These teachers shall be employed in a full time teaching capacity by the school district in which they are employed.

* * *

Plans are being made to organize State Physical Education Associations in the following three states: Illinois, Nebraska, and Vermont.

* * *

Dr. Butler of Columbia University has announced that athletics are now a definite part of the Department of Physical Education under Dr. Elliott, Director of Physical Education at Columbia University.

* * *

Eastern Kentucky State Teachers College, Saturday morning, October 3, dedicated the Weaver Building for health and physical education. T. E. McDonough is head of the department and is developing a splendid program.

* * *

Herbert L. Cushing is Acting State Director of Physical Education for Nebraska.

* * *

The Women's Building at the University of Texas is now completed and is one of the finest in the country having six gymnasiums and a most beautiful swimming pool. Anyone interested in plans for a University Building should get in touch with Miss Hiss.

* * *

Harry L. Samuel is Director of Intramural Athletics at West Virginia University. His department has published a very suggestive booklet entitled "Handbook of Intramural Athletics."

* * *

A study of Intramural Point Systems for Girls' Athletics has recently been completed by a Committee which was appointed in 1929 by the Executive Committee of the Women's Division, N.A.A.F. Members of the Women's Division may secure copies of this study by writing the New York Office at 303 West 42nd Street.

* * *

Mr. Carl Chamberlain of Rochester is doing some fine experimental work in the Rogers Capacity Tests. Mr. Chamberlain is making some very fine experiments and is heartily interested in the New York State Program.

At the Eastern District Convention at Trenton, Dr. J. S. Plant made some pertinent remarks in his talk on "The Present Status and Probable Future of Mental Hygiene"—

1. Child's definition of a psychiatrist—"I've been to see a doctor to see if I was a nut, and I passed."
2. Why truancy delinquency?
   (a) Bad conduct is normal reaction of normal individual to abnormal conditions.
   (b) The things we see people doing are only the symptoms of something deeper.
   (c) We must treat the social causes that bring on mental conflicts.
   (d) Physical health is the cause of the trouble in six out of eight court cases.
3. The "tension" cases.
   (a) Those "not at peace with the world."
   (b) The "on edge" children.
4. The sissy and the bully.
   (a) Both have same problem.
   (b) Both are failures.
   (c) Give both the experience of success in some endeavor.
5. The general problem.
   (a) Conduct only a symptom.
   (b) It is only by treating the entire individual that we can help him.
   (c) We must have a definite interest in building health.
   (d) We must train our boys and girls to be in the game —not onlookers.
   (e) Physical Expression of life is being taken away from us. We need to re-introduce the Physical Expression of sorrow, love, joy.

* * *

An important statement appeared in the New York Times. Dr. Broome is Chairman of the Department of Superintendence of the National Education Association and is one of America's leading educators.

"Dr. Edwin C. Broome, Superintendent of Schools of Philadelphia and chairman of the National Education Association Department of Superintendence, in speaking at the National Education Association Convention at Los Angeles, July, 1931, stated that even in the most progressive cities 'the program of physical education and recreation is inadequate. One large city whose school system holds high repute is spending $25 a pupil in its academic high school for Latin and $3 for all forms of physical and health education.

" 'There is hardly a community which cannot afford to double its support of physical and health work, even, if need be, at the expense of corresponding retrenchment in other forms of service.'

"Many colleges are niggardly in furnishing adequate facilities for the health and all-around physical development of the great body of students who bring no glory or advertising to the institution."

* * *

The U. S. Department of the Interior, Office of Education, has published a very interesting list of Professional Courses in Physical Education for Teachers, May 1931, 54922. It is a list of over 400 institutions and gives the following facts: Approximately 410 institutions give a 2, 3 and 4 year major and minor in physical education. The number of institutions that give a four year major are as follows:

Public institutions, universities and colleges	63
Private institutions	77
State teachers colleges	70
Total	210

* * *

Elmer Berry, who is head of the International Young Men's Christian Association School at Geneva, visited this country last July. Our good friend Berry was in the best of health and very enthusiastic about the International School. He sends regards to all his good friends.

Measurement of Skeletal Widths

(Continued from page 11)

sonality type tend just now to lay stress on the shoulder-height ratio.

All of the physical measurements mentioned in this note require care on the part of the examiner, and a reasonable amount of cooperation on the part of the examinee. We are so used to taking statures that we sometimes fail to realize how possible it is to have a relatively large fraction of error even in this measurement. No one should arrange a schedule of measurements that involves such a pressure for speed that the various items have to be "guessed" off; nor should such measurements, even though they appear simple, be turned over to an untrained assistant.

The problem of overweight and underweight is by no means a settled one. We have considerable evidence accumulating from life insurance experience that overweight is not compatible with long life. Here then in the mere matter of body weight, when applied to such standards as we already have, we discover the very first definable symptom that points to a shorter than average span of life. This lead is surely of extraordinary interest to all who concern themselves with human development and with physical and mental hygiene. Perhaps if we can to some extent break away from our traditional manner of thinking in terms of height, we can achieve a more just approximation to useful standards in this field.

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Eastern District Association News

Compiled by L. A. ALEXANDER, *the University of Rochester*

New Jersey

DR. A. G. IRELAND

Paterson public schools are introducing this year a special physical education program for crippled children. Miss Grace Newton is the director.

Newark high schools are active in the promotion of archery for both girls and boys. The Barringer high school has organized a golf club for girls.

Archery clubs play a prominent part in the physical education programs of the Jersey City high schools, including the evening high school.

The Educational Basketball League is a unique project conducted by the physical education department of the Jersey City public schools. It is unique in that it is not a part of the school physical education work but an evening program for working and non-employed boys, ages 14 to 19, sponsored by the schools. The board of education provides several school gymnasiums in different parts of the city, furnishes the balls, and pays for an instructor. The boys are organized into teams of ten members by the instructors. These teams exist for one season. The teams are then arranged into twelve divisions of six teams each. Each division plays a tournament. The winners then meet in semi-finals and finals. No admission is charged to the games except for the final championship contest when a small fee is required. From the money obtained in this manner suitable trophies are purchased for the winning teams. There are no paid officials, all officiating being done by the boys themselves. The instructor is present as a supervisor, to keep things moving, to act as a judge in disputes, and to maintain order.

The testimony of policemen and firemen is interesting. It is said that loitering, ganging, and trouble-making are greatly reduced in the neighborhoods when the league operates.

The annual meeting of the New Jersey Physical Education Association will be held at Atlantic City, November 28. The committee has arranged a most interesting program.

New York

W. W. H. MUSTAINE

The physical education sections of the various districts of the New York State Teachers' Association had very interesting meetings in October. The programs were purposeful and constructive. Among the visiting speakers were Dr. Clifford L. Brownell and Dr. Thomas D. Wood of Columbia University, Dr. Allen G. Ireland of New Jersey, Dr. Jay B. Nash and Mr. Frank S. Lloyd of New York University, Mr. G. B. Affleck of Springfield College, and Dr. Dean F. Smiley of Cornell University.

At a meeting of the health and physical educators of the New York State normal schools and colleges held in Buffalo on October 12, definite steps were taken to adopt a uniform plan of classifying students for the purpose of differentiating programs according to their needs. Course 1 is to consist of individual programs, with emphasis on the improvement of the student's personal health; Course 2 is for all students, with emphasis on the development of knowledge, habits, and appreciations of healthful, recreative activities; Course 3 is a normal training course for all students, with emphasis on the preparation of the teachers in training to conduct the physical education activities of their own pupils. A committee was appointed to propose specific objectives of these courses and to formulate the activity programs and methods needed for achieving the objectives.

Special recognition was given to the field of health and physical education by the 67th Convocation of the University of the State of New York, which was held in the State Education Building at Albany in October, the central theme of the meeting being "Health Education." On that occasion the State Board of Regents and a large number of school administrators and teachers heard excellent addresses by Frederick G. Banting of the University of Toronto, Ray Lyman Wilbur, Secretary of the Interior, Dr. J. B. Nash of New York University, Dr. Herbert S. Weet, Superintendent of Schools in Rochester, Dr. Livingston Farrand, President of Cornell University, and other prominent speakers.

Connecticut

DR. C. J. PROHASKA

The meeting of the health and physical education section of the Connecticut State Teachers' Association Convention was held on October 23 at Hartford, and consisted of a combined luncheon meeting of nurses, physical education teachers, and all interested in school health work. Dr. Stanley H. Osborn, State Commissioner of Health for Connecticut, addressed the group on "Applying the School Health Program to Community Health Needs."

Separate group meetings were held in the afternoon. Carl Schrader of Massachusetts State Department of Education spoke to the physical education teacher on "Why Special Teachers of Physical Education?" The school nurses heard Miss Constance Leigh, superintendent of the Newington Home for Crippled Children, talk on "Rehabilitating Physically Handicapped Children." A special exhibit of health education materials was on display.

Maine

R. H. COBB

The following committee was in charge of the physical education section of the Maine State Teachers Association meeting which was recently held in Portland. Chairman, Harry A. Mapes, South Portland; Vice-chairman, Henry Small, South Paris; Secretary, Miss Helen Nesbit, South Portland.

At the business meeting it was voted that the present Physical Education section of the Maine Teachers' Association become the Society for Maine of the American Physical Education Association. The following officers were elected: President, Roland H. Cobb, Associate Professor of Physical Education, Bowdoin College, Brunswick; Vice-President, Mrs. Grace Clifford Howard, Supervisor of Physical Education, Brownfield; Vice-President, Daniel Coady, Director of Physical Education, Millinocket; Secretary-Treasurer, Miss Desmond, Thornton Academy, Saco. Executive Committee: Frank A. French, Athletic Director, Lewiston High School, Lewiston; George H. Vinall, Director of Athletics, Deering High School, Portland; and Mr. Mulvaney, Director of Athletics, Bangor High School, Bangor.

The following addresses were made at the physical education sectional meeting. Carl L. Schrader, State Supervisor of Physical Education in Massachusetts, spoke on "Objectives and Procedure in Physical Education"; Gilbert F. Loebs of Teachers College, Columbia University, read a paper on "Are We Educating Through the Physical?"; Mrs. Grace Howard of Brownfield discussed "Some Actual Achievements in Physical Education"; Hoyt H. Mahan of Augusta gave a talk on "The Official and the Coach"; and Miss Ruth E. Merrin of Portland spoke on "Danish Gymnastics."

Maryland

HOPE GODWIN

The Maryland Physical Education Association has elected the following officers for the 1931-32 school year: President,

Bertha Schools, Supervisor of Elementary Education, Baltimore City Public Schools; First Vice-President, Harold S. Callowhill, Field Leader for Boys' Activities, Playground Athletic League; Second Vice-President, Josephine Fiske, Department of Physical Education, Goucher College; Treasurer, Donald I. Minnegan, Department of Physical Education, Maryland State Normal School; and Secretary, Hope Godwin, Playground Athletic League.

At the 64th Annual Meeting of the Maryland Teachers' Association on Friday, October 23rd, the program of the Physical Education Section was as follows: Chairman, Dr. William Burdick, and addresses by Miss Ruth Evans, Director, Springfield Public Schools; Dr. Leo V. Schneider, Playground Athletic League; and a demonstration of city school games by Dr. L. Raymond Burnett. Miss Evans spoke on "Elementary and High School Programs" and Dr. Schneider selected as his topic "Color Blindness."

The following are the school and inter-school athletic activities in secondary schools in Baltimore: Boys—football, soccer, basketball, baseball, track, tennis, lacrosse, swimming, wrestling, boxing, fencing, rifle, leaders, gymnasium, Baltimore ball, playground ball, hurl ball, volleyball, American ball; Girls—hockey, basketball, volleyball, track, tennis, sprint ball, gymnasium, fieldball, winter carnival, games and relays, dancing, archery.

The greater Baltimore Soccer League has been organized under the auspices of one hundred and four teams in the thirteen divisions playing a double round robin, making a total of seven hundred twenty-eight games scheduled. It is regarded as the largest soccer league in the country. All games will be played in the public parks and all players are amateurs.

A need was felt for an Archery Club in Baltimore and last spring the club was organized under the name of the Oriole Archers and under the direction of the Playground Athletic League. Interest increased to such an extent following the formation of this organization that the first Maryland Archery Championships were held September 27 at the Baltimore Stadium.

Entry blanks have been sent out for the Fourteenth Annual State-Wide Soccer Tournament, conducted by the Playground Athletic League for county high school boys. There will be twenty-three counties playing which is 100 per cent participation. County championships are first determined followed by an elimination inter-county tournament until two teams survive, the winner of the Eastern Shore and the surviving team of the Western Shore. These two teams then meet for the State Championship.

Entry blanks have also been sent out for the Ninth Annual State-Wide Fieldball Tournament conducted by the Playground Athletic League for county high school girls. A participation of one hundred and twelve schools in twenty-two counties is expected. Elimination intra-county tournaments are held, followed by inter-county tournaments on both shores. Then the winners of the shore tournaments vie for the State Championship. This game is always played on neutral ground and the teams are entertained at the homes of the school girls. Following are the regulations governing the tournaments:

"Eligibility of pupils to represent a school shall be determined by the principal of the school entering a team, subject to review by the County Superintendent.

"A girl must be an amateur, a bona fide student enrolled and regular in attendance at the school she is to represent.

"No girl who has reached the age of twenty is eligible to compete.

"A girl must not represent her school after she becomes a post-graduate.

"A girl may play only four years on a high school team after she becomes a high school student.

"The schedules for all intra-county games shall be arranged by the principal of the school entering teams within the county, subject to the approval of superintendents.

"A game shall count two points; a tie shall count one point.

"There shall be no overtime play except in inter-county games.

"All intra-county championships shall be decided on a basis of total points."

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For catalogue address

MISS DORIS CROCKETT, Registrar
Russell Sage College Troy, New York

Training in Swimming

(Continued from page 26)

laps each day after working on the board, and therefore I insist upon this practice. These laps start with two and increase one a week until the number of eight has been reached. The boys continue at that number except on Monday, when they drop two.

Swimming, as a competitive sport, is still considered of minor importance in most high schools and colleges. The sport is growing in popularity throughout the country, in fact throughout the world. Some of our largest universities and preparatory schools now list swimming among their major sports. It was a very fine tribute to the sport to see the large crowd who attended the water competition at the Olympics held in Amsterdam. I had the pleasure of attending this event and noticed that a large number could not obtain seats and were turned away. The sport is most interesting from the spectator's standpoint, as well as from that of the competitor. Considering that the time of the 100 yard dash has been cut since 1888 from one minute and six seconds to 51 seconds in 1927, it is hard to judge what the next fifty years may give us.

The sport is progressing in leaps and bounds. Many more people should interest themselves in this form of athletics; and so it is up to the men at every team's helm to help popularize this sport.

Outline for Girls' Basketball

(Continued from page 37)

G. Hints for guards.
1. Play the ball, not your opponent.
2. While waiting for ball, stay just back of opponent and between her and basket.
3. Do not get caught in a corner.
4. Do not guard the basket. Guard opponent so closely that she must take hurried shots, but watch for a juggle.
5. Catch balls coming off back board. Jump!
6. Do not pass the ball in front of the basket—but down the side of the court.
7. Watch opponent's eyes to help you judge direction of throw.
8. Cover an opponent out of bounds after pass is made.

H. Hints for Centers.
1. Practice jumping; learn to time ball and jump accurately.
2. Start quickly after landing from jump.
3. Hit under ball rather than on the side.
4. Work up signals with center teammate, forwards and guards.
5. Don't stand at line waiting for ball when a teammate has it, stay back and run up.
6. Keep arm down until spring is made; jump is higher.
7. Get ball to forward as soon as possible.
8. Practice "jump and reach."

I. Hints for Forwards.
1. Get missed shots off back board.
2. After passing, move to advantageous place to receive return pass.
3. Be ready to receive a backward pass from teammate closely guarded.
4. Keep in the open to receive passes.
5. Keep between guard and basket—get guard in corner away from basket.
6. Use short shots for basket instead of long ones.
7. Do not stand at line waiting for pass from center.
8. Take time to aim; steady your throw; pass rather than shoot hurriedly.
9. Use two hands when possible.
10. Shoot high and "easy" for looped shots so that they fall vertically into basket.
11. For banked shot the "ideal spot" is 6 feet from end line and 3 feet from free-throw land. Hit backboard 10 inches above ring and 7 inches to side.
12. Juggle backward if too close under basket.

J. Kinds of shots.
1. Chest—for loop shots.
2. Underhand loop—for free throws.
3. Two hand twirled shot—for position close under basket.
4. One hand loop shot.
5. One hand push.
6. Two hand over head.

K. Practice events for shooting.
1. Use 5 trials for each, 2 points for each basket except 5 and 6 in section J, which score 1 point each.
2. Take one bounce and chest throw, 5 trials.
3. Stand facing away from basket, pivot, bounce and chest throw, 5 trials.
4. Use continuous throw. (After first throw stand wherever all is secured from basket), 10 trials.
5. Time the continuous throw.
6. Line up squad, half in one diagonal line, half in other, facing basket. No. 4 passes to No. 1, who shoots, recovers, throws the ball to No. 2, then goes to the end of line A. As soon as No. 4 has thrown the ball, she goes to the end of line B.

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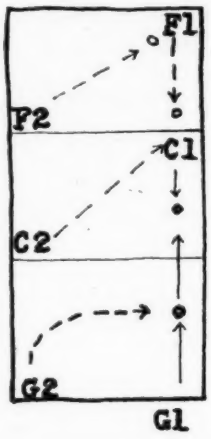
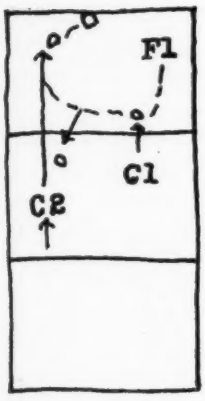
L. Team Plays.

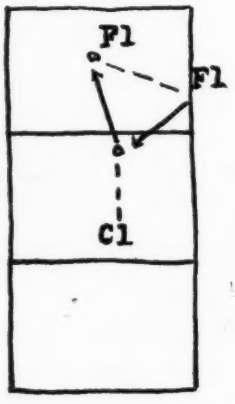
1. Guard to forward. Side court pass G (1) passes to G (2), who has run across the court. G (2) then passes to C (1), who has run from up court to her. C(2) crosses over to back up C(1), receives the ball, passes to F (1), who comes from back court. F(1) passes to F(2) who crosses and shoots.

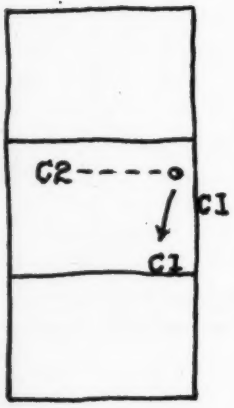




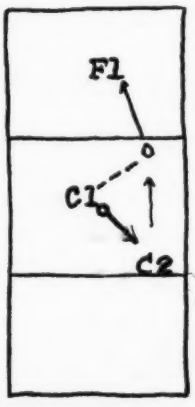
2. Center to forward. F(1) advances from back court, receives the ball from C (1), throws the ball to C(2) who has advanced, goes back court, receives the ball from C(2) and shoots.

3. Forward out of bounds to center. F(1), out of bounds. throws the ball to C(1) who has run forward. F (1) advances toward the basket, receives the ball from C(1), and shoots.





4. Center out of bounds to center. C(1) throws the ball to C(2) who runs toward her; C(1) steps into the court and receives the ball from C(2), and throws it to F(1) who has advanced.



5. Center to center to forward. C (1) bats the ball slightly back to the right, then runs forward toward the forward, receives the ball from C(2), and throws it to F(1).

M. Tournaments.

1. Round Robin (each team plays every other team). See — Wayman "Education through Physical Education," page 169.
2. Elimination—Round Robin (after first round, winners and losers each have a round robin).
3. Elimination—Consolation (after first round, winners and losers each have an elimination tournament). Wayman—"Education through Physical Education," page 172.
4. Double Elimination — (after each round all winners and all losers play; winners of losers enter in final round with winner of winners). See—Volley Ball rule book.

N. Points for referee.

1. Show true sportsmanship.
2. Be firm and pleasant.
3. Know rules.
4. Follow ball, but keep on side line out of path of ball and players.
5. Keep whistle in mouth and call decisions quickly, accurately, and impartially.
6. If game slows up, count when players hold ball.
7. Have understanding with scorekeeper about method of indicating fouls.
8. Become a registered official if possible.

BIBLIOGRAPHY

1. Basketball Guide, Spalding Athletic Series.
2. Theory and Technique of Women's Basketball. Fish—Heath Co., 1929.
3. Basketball for Women. Frymir—A. S. Barnes & Co., 1928. (Long bibliographies given in above.)
4. A Handbook of Basketball for Women. $.15. Address Miss Eline Von Borries, Goucher College, Baltimore, Md.
5. An Athletic Program. Hillas and Knighton—A. S. Barnes & Co., 1929.
6. Games for the Playground, Home and School—Bancroft.

Modern Health Education

(Continued from page 14)

of thought, experimentation, solution of problems, and conclusions, as well as development of initiative and originality. Perhaps it is not unreasonable to expect slow growth in adopting more difficult methods and procedures. Hence, we might consider that the one-fourth of the activities mentioned above as suggested in the texts (those that tend toward activities other than telling, reading, and writing) are stepping stones to units, which do not appear at all in these texts.

Such activities as are suggested in this one-fourth do not lead to further interests; instead, each activity is brief. They are abrupt and final in procedure and outcome. Therefore they discourage whole-hearted participation. The lack or absence in these texts of directions or guidance to carry out an activity is perhaps significant. Are explanations lacking because the activity is so apparently easy, or are they lacking because directions are difficult, and involve thought and hard

work? For example: To study the temperature at different levels in the schoolroom—on the floor, near the ceiling, and halfway between—the pupil is told to place three thermometers at the different heights. After these have remained there for some time he is told to read them and explain the results. Such points as to the best time of day, how to get the thermometers placed, how long to keep them there, and opportunity for self-conclusions, are omitted. The fact that an activity does not employ explanation or direction, is possibly a criterion of its ineffectiveness. Such ineffective types of so-called activities are giving way to units of teaching.

By units of teaching is meant a series of coordinated activities relating to one phase of study and made purposeful through guidance. A unit provides completeness of experience for the child and certain essential subject matter which meets the individual's need, characteristics, and interests. The purposes of a unit are as follows:

To use real life situations in teaching; to guide the child to take part, to express himself, and to suggest so that one activity may lead to another.

To make progress in skill, experimentation, solution, judgment and application of study.

To lead to the development of desirable habits.

Units of teaching are being successfully worked out by various schools.

7. *There should be tests showing the measurement of results.* Questions, and perhaps paper and pencil methods, do not give to the teacher a knowledge of the variety of outcomes. Since the procedure may be largely an activity program, perhaps we should look for some of our results in activity outcomes. For example, a unit of work may result in being summarized in the form of a museum program from which the teacher discovers such things as the achievements of the children in relation to the objectives set up, the existing abilities and skills the children possess, and the effectiveness of the teaching unit.

8. *The health material should be sufficiently difficult to gain the child's respect and interest; should be free of non-essentials that provoke revolt and such easy procedures that lead to expressions of finality.* A goal too easily reached is discouraging, and one just beyond the reach is encouraging. Often it is found that a child takes a health text and reads it through the first day or two after it is given to him. Then he is through with it. Is this because these so-called texts come nearer being supplementary *readers* than texts?

In conclusion, some possible ways of meeting the difficulties of using modern methods in health instruction may be given. The solution is primarily in the hands of school administrators and teacher training institutions, as follows: (1) It is up to administrators to give adequate time and place to health instruction and to sponsor modern methods throughout the curriculum in so far as practical. Pressure needs to be brought to bear to put into practice some of the modern methods which have been tested and proved of value. (2) State education departments and superintendents of schools should publish courses of study that refrain from such general objectives, and instead state objectives that are more specific and more related to the child's interest, needs, and characteristics, and to the activities to be used. They should encourage the adoption of texts and work books that provide an activity program for the teacher. (3) Teacher training institutions will hasten progress in health education by introducing a health education course for all teachers rather than restricting health education for physical educators and other specialists. (4) Teacher training institutions should appreciate the value of a course in child development and care and make this as much of a pre-requisite for physical education, health, and other related specialized teachers, as is anatomy, nutrition, hygiene, etc.

In the fulfillment of these needs, schools will adapt methods which will produce outcomes relating to the development of child life, i.e., the physical, social, emotional, and mental development—our ultimate aim.

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Gym Night Performance. E. D. Edgren and M. A. Clevett. The Y. M. C. A. College. Mimeographed. 75c.

This book contains detailed descriptions of all of the activities in the 1931 Gym Night Performance. It will be of especial interest to physical directors who are looking for practical material in tumbling, apparatus work, marching tactics, basketball drills, and gymnastic dancing. The book may be obtained from Mr. M. A. Clevett, Y. M. C. A. College, 5315 Drexel Avenue, Chicago, Illinois.

Health Through Leisure-Time Recreation. Edith M. Gates. Woman's Press. 215 pp. $2.50.

The aim of this book as stated by the author is "to show health education as a primary element in adult education and to present the scope and place of health education as accepted by the Y. W. C. A." The book contains helpful suggestions for Health Education Secretaries in the Y. W. C. A., interesting historical notes, and selected bibliographies.

Administration of Physical Education. Jay B. Nash, Ph.D. A. S. Barnes & Company. 500 pp. 185 illus. $3.00.

This book contains a wealth of helpful information for those interested in the administrative side of physical education. It is a most comprehensive study including administration, plans of physical education plants, organization of states, cities, and counties, standard equipment, teaching and supervision, classification of activities and of children, training and organization of leaders, establishing policies, cooperation, professional progress and its measurement.

Interesting features of the book are the thought producing problems at the end of each chapter, and a list of principles involved in solving them. Also, the bibliographies and diagrams contained in the book are in themselves of tremendous worth.

Essays on Marriage. Frederick M. Harris. Association Press. 208 pp.

This book is based upon wide reading and observation, is scientific, sympathetic, and contains sound philosophy. It is a valuable contribution toward an abundant life.

The Birch Bark Roll of Woodcraft. 1931. Ernest Thompson Seton. A. S. Barnes & Company. 268 pp. $1.00.

This is the 29th edition of this "Manual for boys and girls from 4 to 94" revised by Julia M. Buttree. It contains invaluable suggestions for camp activities, including games of various types and for varying occasions, dances, songs, handicraft. A most helpful book for any camp leader.

Health Trends in Secondary Education. American Child Health Association. 161 pp.

This is the third printing of this bulletin, which was first published in 1927. This edition contains revisions in the bibliographies appended to each chapter, including in them valuable recent contributions in the field of health education in secondary schools and providing annotations.

Communicable Disease Control. Report of Committee of the White House Conference on Child Health and Protection. Century Company. 288 pp. $2.25.

This report is the result of an extensive study. The book contains valuable statisticis; points out the importance of the control of communicable diseases among children; reviews the current control practices; recommends those practices which experience has indicated are most effective; and suggests fields in which further study is most urgently needed. This is probably the most up-to-date and most authoritative information obtainable on the control of various diseases.

Tables of Food Values. Alice V. Bradley. The Manual Arts Press. 125 pp. $2.00.

While this book is intended for those who are engaged in dietetic work, it would be of great value to any household. Foods are classified and listed, giving their contents, values, and reactions. In Part I the food values are given for average servings, in Part II for 100-gram portions. All of the data are tabulated and easily seen at a glance. Recipes are also given.

Nutrition and Physical Fitness. L. Jean Bogert, Ph.D. W. Saunders Company. 540 pp. 65 illus. $3.00.

Though intended for a text, this is a most interesting and helpful book for any household. It discusses the composition and uses of foods, the nutritional requirements at different ages and under varying conditions; lists food fallacies with the truth concerning them; gives skeleton menus and tells how to build balanced menus for a day and week and for different seasons of the year, how to use left-over dishes; discusses economy in the buying and cooking of foods; gives diets for children, adults, and for certain conditions. Weight tables for men, women, boys, and girls are given, and there is an appendix listing 100 C. portions of foods.

Creative Camping. Joshua Lieberman. Association Press. 251 pp. $2.00.

Mr. Lieberman has given a vivid picture of a unique experience in founding and developing the experimental camp of the Pioneer Youth of America—sponsored by the American Federation of Labor Unions. This camp started without equipment or resources. The results of applying modern educational methods in building and equipping the camp and then in determination of objectives is a contribution to educational experimentation. Includes an intensely interesting analysis of the six years work.

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Ithaca College 57
Kendall College of Physical Education 55
Panzer College 49
Posse-Nissen School of Physical Education 49
Russell Sage College 51
Sargent School of Physical Education 57
Savage School of Physical Education 53
Wellesley College 51

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MISCELLANEOUS

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Numbers refer to: First—Number of Issue; Second—Page Number, e. g., 8:32 refers to No. 8 (Oct.), Page 32.

No. 1, Jan.; No. 2, Feb.; No. 3, March; No. 4, April; No. 5, May; No. , June; No. 7, Sept.; No. 8, Oct.; No. 9, Nov.; No. 10, Dec.

ABERCROMBIE, Edward F.
The Game of "Squash." 3:26.
Squash Court and Rules of the Game. 4:39.

ADMINISTRATION
The College Administrator and Athletics. William Mather Lewis. 10:8.
Current Education Problems in Relation to Physical Education. Elizabeth Halsey. 2:12.
Men Whom I Have Not Helped in the Gymnasium. C. D. Giauque. 8:38.
Organization and Administration of Corrective Work. Committee Report. 7:18.
Organization of Boys' Physical Education Program. William R. Hillebrand. 4:44.
The Problem of Administering Health and Physical Education in Secondary Schools. William H. Bristow and Charles D. Vibberts. 9:3.
The School Health Service—Reasons Favoring Its Administration by School Authorities. Allen G. Ireland. 4:19.
Standards in School Health and Physical Education. Clifford Lee Brownell. 3:8.
Who Shall Teach Physical Education in the Elementary Schools? The Special Teacher. M. Behrensmeyer. 5:28. The Classroom Teacher. K. S. Davis. 5:29.

ADOLESCENCE
The Hygienic Problems of Adolescence. L. B. Chenoweth. 5:15.

AMERICAN Physical Education Association
Revised Constitution and By-Laws, A.P.E.A. 3:42.
A.P.E.A. Convention, 36th annual meeting, Detroit, Michigan, April 1-4, 1931. 3:31.
Legislative Council Meeting. Proceedings of Meetings in New York, December 29-30, 1931. 2:20.
Presidents A.P.E.A. Dr. F. W. Maroney, Retiring President, 2:4. Miss Mabel Lee, New President. 2:5.
Presentation of Fellowship Awards by the A.P.E.A. 6:14.
Sections:
News from Eastern District Society. 2:30; 4:35; 7:44; 10:40.
News from Northwest District Society. 6:38.
Program of Convention, Southern Section, Louisville, Kentucky, March 11-14, 1931. 2:22.

ANDREWS, Elizabeth and Nelsen, Elise
Applying Academic Teaching Techniques to Physical Education. 5:30.

ARCHERY
Archery Repairs. Phillip Rounsevelle. 5:26.
Archery Tournaments. Phillip Rounsevelle. 6:28.
Indoor Archery. Phillip Rounsevelle. 1:20.

AROUND the Country with J. E. Rogers. 1:33; 2:40; 3:37; 4:37; 5:34; 7:38; 9:42; 10:48.

ATHLETICS (see also Intramurals and Tournaments)
The Athletic Assembly Program. W. P. MacLean. 8:34.
The Outlook for College Athletics. Wm. Mather Lewis, 10:8.
How Much Faster Can Sprinters Travel? David P. Willoughby. 9:34.
How to Make a Round Robin Schedule. E. Boyd Graves. 1:44.
The Intramural Idea in Interschool Competition. Willard L. Nash. 10:38.
The Place of Varsity Athletics in a Program of "Athletics for All." Fielding H. Yost. 6:6.
Why Cramp Competition? Ina E. Gittings. 1:10.
In Answer to "Why Cramp Competition?" Grace B. Daviess and Anne F. Hodgkins. 3:29.

AWARDS
Presentation of Fellowship Awards, A.P.E.A. 6:14.

BASKETBALL
Games of the Basketball Type. D. K. Brace. 1:30.
Outline for Girls' Basketball. Grace Hartley. 10:36.

BAUER, Lucile
"Pheez Ed. Mo' Bettah—We Like!" 4:3.

BEEMAN, C. W.
Teaching Sportsmanship. 8:42.

BEHRENSMEYER, Marguerite
Who Shall Teach Physical Education in the Elementary Schools? The Special Teacher. 5:29.

BERRY, Elmer. Various Systems of Physical Education. 9:20.

BERTRAM, Agnete. What Gymnastic Aims Should Be. 5:8.

BOOK REVIEWS
1:56; 2:56; 3:64; 4:60; 5:64; 6:64; 7:60; 8:60; 9:60; 10:56.

BRACE, D. K. Games of the Basketball Type. 1:30.

BRECKENRIDGE, Colonel Henry. Chairman, Committee on Recreation and Physical Education, White House Conference, Section III-E, Child Health and Protection. 3:21.

BRISTOW, William H. and Vibberts, Charles D. The Problem of Administering Health and Physical Education in Secondary Schools. 9:3.

BROWNELL, Clifford Lee. Standards in School Health and Physical Education. 3:8.

BUILDINGS and Construction. Physical Education Hall—A New Departure in Building Construction. William Ralph LaPorte. 7:6.

BURNETT, J. H., and O'Brien, Fred J. A. Survey of Football Injuries in the High Schools of Massachusetts. 8:32.

BUTLER, Leslie A. Grand Rapids Program for Health, Physical Education and Recreation. 7:16.

CALDWELL, Mary Isabel. A Grand Finale for Freshman Hockey. 4:28.

CAMPING
Camping and Woodcraft as Part of the Physical Education Program. Carolyn V. Weems. 9:38.
Water Games for Class, Club, or Camp. Lucy South Proudfoot. 6:34.

CANOEING. Simplified Canoeing Instruction. Frank Lynam. 5:12.

CHENOWETH, L. B. The Hygienic Problems of Adolescence. 5:15.

CLASSES, Gymnasium
Natural Activities. Norma Schwendener. 4:19.
What Gymnastic Aims Should Be. Agnete Bertram. 5:8.

CLASSES, Special, (See also Correctives).
Physical and Health Education in Special Classes. W. H. Grigson. 3:3; 4:15; 9:26; 10:27.

COHEN, Irwin H. Training in Swimming. 10:24.

COMMITTEE Reports
Report of Committee on Recreation and Physical Education. Child Health and Protection. Colonel Henry Breckenridge, Chairman. 3:21.
Report of Committee of A.P.E.A.—Symposium of Preventive and Corrective Physical Education. George T. Stafford, Chairman. 4:11; 5:23; 7:18; 8:22; 9:32.
Preliminary Report of the Committee on Professional Objectives. Ten Cardinal Points in the Platform of Health and Physical Education. J. F. Williams, Chairman. 2:19.

CONFERENCE, White House (see Health)

CONSTITUTION and By-Laws
A.P.E.A. 3:24.
Missouri State Society. 3:56.

CONVENTIONS
36th Annual Meeting, American Physical Education Association, Detroit, Michigan, April 1-4, 1931. 3:31.
Summaries of Meetings of the 36th A.P.E.A. Convention, Floyd A. Rowe. 6:22.
Convention Program, Eastern District Society A.P.E.A., Trenton, New Jersey, April 29-May 2, 1931. 4:33.
Convention Program, Northwest District Society. 4:47.
Convention Program, Southern Section of A.P.E.A., Louisville, Kentucky, March 11-14, 1931. 2:22.

CORRECTIVES
Organization and Administration of Corrective Work. George Stafford, Chairman of Committee. 7:18.
Symposium of Preventive and Corrective Physical Education. Committee Report. George Stafford, Chairman. 4:11; 5:23; 7:18; 8:22; 9:32.
Tonus Reflexes and the Problem of Corrective Gymnastics. Arthur H. Steinhaus. 5:42.

COSTUMES. Authentic Costumes for Folk Dances. Laura May Hill. 2:23.

COTTERAL, Bonnie. Hiking—A Physical Education Activity. 4:25.

COWELL, Charles C. Mental Attitudes in Physical Education. 3:14.

DANCING
Authentic Costumes for Folk Dances. Laura May Hill. 2:23.
Dance Away the Night—A Waltz Clog. Marion Mair. 8:44.
Dancing Has Its Place in the Physical Education Program. Janice Kent. 6:20.
Folk Dancing in Sweden. Kerstin V. Thorin. 3:11.
Project Method in Teaching the Dance. Lucile Marsh. 3:17.
The Recital as a Class Project—with a Story for a Clog Dance Recital, "The Perky Pirates Barber Shop." Hazel A. Richardson. 1:25.
Values in Rhythmics. Emily White. 9:8.
Waltz Tap Dance. E. R. Knollin. 8:42.

DANFORD, H. G.
The Elementary Teacher as a Physical Educator. 1:3.
The Physical Education Demonstration for Elementary Schools. 4:20.

DAVIES, Mabel B. Are Games Enough? 7:23.

DAVIESS, Grace B. In Answer to "Why Cramp Competition?" 3:29.

DAVIS, Kathleen Skalley Who Shall Teach Physical Education in the Elementary Schools? The Classroom Teacher. 5:29.

DAVIS, Perry L. Industrial and Educational Changes Affect Physical Education. 2:15.

DEMONSTRATIONS
A Grand Finale for Freshman Hockey. Mary I. Caldwell. 4:28.
The Physical Education Demonstration for Elementary Schools. H. G. Danford. 4:20.

DRAMATICS
The Recital as a Class Project—with a Story of a Clog Dance Recital, "The Perky Pirates Barber Shop." Hazel A. Richardson. 1:25.
Revels—Old and New, presented at Norfolk, Virginia. Kirk Montague. 7:50.

DRIFTMIER, Erna. The Ladder Tournament. 8:36.

EASTERN DISTRICT SOCIETY. (See A.P.E.A. and Conventions).

EDITORIALS. 1:18; 2:18; 3:22; 4:18; 5:22; 7:24; 8:20; 9:18; 10:22.

EDMONSON, J. B. The Objectives of Physical Education. 5:5.

EDUCATION
Applying Academic Teaching Techniques to Physical Education. Elizabeth Andrews and Elise Nelsen. 5:30.
Current Educational Problems in Relation to Physical Education. Elizabeth Halsey. 2:12.
How 500 Students Live. Julia Emery. 7:27.
Industrial and Educational Changes Affect Physical Education. Perry L. Davis. 2:15.
The Objectives of Physical Education—Are School Principals Satisfied? J. B. Edmonson. 5:5.
The Seven Cardinal Principles and Physical Education. James E. Rogers. 1:19.
Ten Cardinal Points in the Platform of Health and Physical Education. J. F. Williams, Chairman, Committee on Professional Objectives. 2:19.

ELEMENTARY SCHOOLS
Definite Health Education Approaches. Mary May Wyman. 9:22.
The Elementary Teacher as a Physical Educator. H. G. Danford. 1:3.
Football Fundamentals Contest for Elementary School Boys. Paul Mitchell. 7:34.
Organization and Administration of Corrective Work. A. Elementary Schools. Committee Report. 7:18.
The Organized Recess Period. Oscar P. Loevenguth. 6:30.
The Physical Education Demonstration for Elementary Schools. H. G. Danford. 4:20.
Who Shall Teach Physical Education in the Elementary Schools? The Special Teacher. Marguerite Behrensmeyer.
The Classroom Teacher. Kathleen Skalley Davis. 5:29.

EMERY, Julia. How 500 Students Live. 7:27.

FOOTBALL
Football Fundamentals Contest for Elementary School Boys. Paul Mitchell. 7:34.
Review of Western Conference Football Strategy, Season of 1931. G. S. Lowman. 10:17.
Survey of Football Injuries in the High Schools of Massachusetts. J. H. Burnett and Fred J. A. O'Brien. 8:32.

FOREIGN COUNTRIES
Folk Dancing in Sweden. Kerstin V. Thorin. 3:11.
Fun in Finland. Thelma Short. 10:5.
Hungary Develops a New Program of Physical Education. Seward C Staley. 2:7.

An International Laboratory. Theodore Wuerfel. 9:14.
"Pheez Ed, Mo' Bettah—We Like!" Lucile Bauer. 4:3.
Sports in Europe. S. C. Staley. 8:3.
FOSTER, Charles F. Posture Expresses Personality. 1:42.

GAMES. (See also Sports).
Are Games Enough? Mabel B. Davies. 7:23.
Games and Recreation in Corrective Classes. Committee Report. 8:22.
Games for Parent-Teacher Associations. W. G. Robinson. 3:28.
Games of the Basketball Type. D. K. Brace. 1:30.
The Old Time Play Party—Recreational Value of its Singing Games. Harriet Nora Rogers. 1:34.
The Game of "Squash." Edward F. Abercrombie. 3:26.
Squash Court and Rules of the Game. Edward G. Abercrombie. 4:39.
Water Games for Class, Club or Camp. Lucy South Proudfoot. 6:34.
GIAUQUE, C. D. Men Whom I Have Not Helped in the Gymnasium. 8:38.
GITTINGS, Ina E. Why Cramp Competition? 1:10.
GRADING. (See also Rating).
A Point System for Giving Marks in Physical Education. Kathryn D. McCabe. 9:11.
Do You Grade or Guess? Evelyn Spindler. 8:26.
GRAVES, E. Boyd. How to Make a Round Robin Schedule. 1:44.
GRIGSON, W. Herbert. Physical and Health Education in Special Classes—History, Problems and Special Methods. 3:3; 4:15; 9:26; 10:27.

HALSEY, Elizabeth. Current Educational Problems in Relation to Physical Education. 2:12.
HARTLEY, Grace. Outline for Girls' Basketball. 10:36.
HEALTH
Are We Becoming Overly Health Conscious? John Sundwall. 8:9.
Child Health and Protection. White House Conference, Section III-E. Committee on Recreation and Physical Education. Colonel Henry Breckenridge, Chairman. 3:21.
The Children's Charter. White House Conference on Child Health and Protection. 3:22.
"Eight" Point Boy or Girl. Arthur Upton. 3:40.
Grecian Health Week. Herbert P. Lansdale. 8:42.
A Health Project. Rhoda C. Schwieg. 5:37.
How 500 Students Live. Julia Emery. 7:27.
The Hygienic Problems of Adolescence. L. B. Chenoweth. 5:15.
Men Whom I Have Not Helped in the Gymnasium. C. D. Giauque. 8:38.
Organic Development Through Exercise. Laurence T. Rogers. 5:10.
Rating Health Practices. Margaret Snyder. 4:44.
Safeguarding the Heart in High School. A. M. Kerr 1:16.
The School Health Service. Allen G. Ireland. 4:19.
HEALTH EDUCATION
Definite Health Education Approaches. Mary May Wyman. 9:22.
Grand Rapids Program for Health, Physical Education and Recreation. Leslie A. Butler. 7:16.
Health and Physical Education in Special Classes. W. Herbert Grigson. 3:3; 4:15; 9:26; 10:27.
Health Education and Its Relation to Physical Education. C. E. Turner. 6:3.
Standards in School Health and Physical Education. Clifford Lee Brownell. 3:8.
Ten Cardinal Points in the Platform of Health and Physical Education. J. F. Williams, Chairman, Committee on Professional Objectives. 2:19.
Two Problems in Health Education. Delbert Oberteuffer. 2:3.
The Use of Modern Methods in Health Education. Jeanie M. Pinckney. 10:12.
HEART
The Heart, Minute-Volume. Arthur H. Steinhaus. 3:38.
The Heart Size—During Exercise. Arthur H. Steinhaus. 8:40.
The Heart Size—Effects of Training. Arthur H. Steinhaus. 10:42.
The Heart Size—Immediately After Exercise. Arthur H. Steinhaus. 9:40.
Safeguarding the Heart in High School. A. M. Kerr. 1:16.
HERMANN, Ernst. Some Essentials in Playground Planning. 6:11.
HIGH SCHOOLS
High School Intramural Programs—Are They Worthwhile? B. E. Wiggins. 1:22.
High School Intramurals. Robert E. Lindwall. 5:44.
Organization and Administration of Corrective Work in Junior and Senior High Schools. Committee Report. 7:18.
The Problem of Administering Health and Physical Education in Secondary Schools. William H. Bristow and Charles D. Vibberts. 9:3.
Safeguarding the Heart in High School. A. M. Kerr. 1:16.
Survey of Football Injuries in the High Schools of Massachusetts. J. H. Burnett and Fred J. A. O'Brien. 8:32.
HIKING. Hiking—A Physical Education Activity. Bonnie Cotteral. 4:25.
HILL, Laura May. Authentic Costumes for Folk Dances. 2:23.
HILLEBRAND, William R. Organization of Boys' Physical Education Program. 4:44.
HINDMAN, Darwin A. Some Needs in Physical Education Teacher Training. 4:8.
HISTORY
Physical and Health Education in Special Classes. History, Problems and Special Methods. W. Herbert Grigson. 3:3; 4:15; 9:26; 10:27.
Pioneers in Physical Education. R. Tait McKenzie. 9:6.
Twenty-one Milestones—Some High Spots of the Past Year in Physical Education. James Edward Rogers. 6:10.
HOAR, Franklin B. Fancy Diving—a Fine Art. 5:18.
HOCKEY. (See Sports).
HODGKINS, Anne F. In Answer to "Why Cramp Competition?" 3:29.
HOLT, Nellie Lee. Integrating Physical Education. 5:3.
HOUSE, H. H. An Interpretation of Play Through Intramural Sports. 7:13.
HOW WE DO IT
Dance Away the Night. Marion W. Mair. 8:44.
Waltz Tap Dance. E. R. Knollin. 8:42.
"Eight" Point Boy or Girl. Arthur Upton. 3:40.
Grecian Health Week. Herbert P. Lansdale. 8:42.
Organization of Boys' Physical Education Program. W. E. Hillebrand. 4:44.
Posture Expresses Personality. Charles F. Foster. 1:42.
Rating Health Practices. Margaret Snyder. 4:44.
Revels—Old and New, Norfolk, Va. Kirk Montague. 7:50.
Round Robin Schedules. Julius Kuhnert. 5:48.
Teaching Sportsmanship. C. W. Beeman. 8:42.
HYGIENE. The Hygienic Problems of Adolescence. L. B. Chenoweth. 5:15.

INDUSTRIAL. Industrial and Educational Changes Affect Physical Education. Perry L. Davis. 2:15.
INTRAMURALS. (See also Athletics and Tournaments).
High School Intramural Programs—Are They Worthwhile? B. E. Wiggins. 1:22.
High School Intramurals. Robert E. Lindwall. 5:44.
An Interpretation of Play Through Intramural Sports. H. H. House. 7:13.
The Intramural Idea in Interschool Competition. Willard L. Nash. 10:38.
An Intramural Organization for Girls. Grace E. Jones. 8:29.
The Place of Varsity Athletics in a Program of "Athletics for All." Fielding H. Yost. 6:6.
IRELAND, Allen G. The School Health Service. 4:19.
IT MAY INTEREST YOU TO KNOW. 2:42; 3:56; 4:52; 5:56; 6:42; 7:40; 8:45; 9:44; 10:50.

JONES, Grace E. An Intramural Organization for Girls. 8:29.

KENT, Janice. Dancing Has Its Place in the Physical Education Program. 6:20.
KERR, A. M. Safeguarding the Heart in High School. 1:16.
KNOLLIN, E. R. Waltz Tap Dance. 8:42.
KUHNERT, Julius. Round Robin Scheduling. 5:48.
KUNDE, Norman F. Play Leadership Training Courses. 1:13.

LANSDALE, Herbert P. Grecian Health Week. 8:42.
LaPORTE, William Ralph. University of Southern California—Physical Education Hall. 7:6.
LEADERSHIP. (See also Teaching).
Play Leadership Training Courses. Norman F. Kunde. 1:13.
Student Instructors in Physical Education. R. C. Quimby. 2:16.
LEWIS, Wm. Mather. The Outlook for College Athletics. 10:8.
LINDWALL, Robert E. High School Intramurals. 5:44.
LOEVENGUTH, Oscar P. The Organized Recess Period. 6:30.
LOWMAN, G. S. Review of Western Conference Football Strategy, Season of 1931. 10:17.
LYNAM, Frank. Simplified Canoeing Instruction. 5:12.

MacLEAN, W. P.
The Athletic Assembly Program. 8:34.
MAIR, Marion W. Dance Away the Night—A Waltz Clog. 8:44.
MARSH, Lucile. Project Method in Teaching the Dance. 3:17.
McCABE, Kathryn D. A Point System for Giving Marks in Physical Education. 9:11.
McCLOW, L. L. Clown Tumbling Stunts. 1:36; 2:32.
McKENZIE, R. Tait. Pioneers in Physical Education. 9:6.
MEASUREMENTS. (See also Tests).
Metabolism of Exercise—A Measure of Skill. 7:36.
The Measurement of Skeletal Widths and a Caliper for the Purpose. W. R. Miles. 10:10.
MEETINGS. (See A.P.E.A.).
METHODS. (See also Teaching).
Physical and Health Education in Special Classes. History, Problems and Special Methods. W. H.. Grigson. 3:3; 4:15; 9:26; 10:27.
Project Method in Teaching the Dance. Lucile Marsh. 3:17.
Simplified Canoeing Instruction. Frank Lynam. 5:12.
The Use of Modern Methods in Health Education. Jeanie M. Pinckney. 10:12.
MILES, W. R. The Measurement of Skeletal Widths and a Caliper for the Purpose. 10:10.
MITCHELL, Paul. Football Fundamentals Contest for Elementary School Boys. 7:34.
MONTAGUE, Kirk. Revels—Old and New, Norfolk, Virginia. 7:50.

NASH, Willard L. The Intramural Idea in Interschool Competition. 10:38.
NELSEN, Elise and Andrews, Elizabeth. Applying Academic Teaching Techniques to Physical Education. 5:30.
NEWS NOTES. (See also Around the Country with J. E. Rogers, How We Do It, It May Interest You to Know, A.P.E.A. Sections).
State News:
Connecticut News Notes. 2:31; 4:35.
Maine News Notes. 2:30.
Maryland News Notes. 4:35; 7:44.
Massachusetts News Notes. 4:35.
New Jersey News Notes. 4:35; 7:44.
New York News Notes. 2:30; 4:36; 7:44.
Oregon News Notes. 6:38.
Pennsylvania News Notes. 2:30.
Rhode Island News Notes. 2:30; 7:44.
Washington News Notes. 6:38.
NICHOLS, C. P. L. Every Sixth Grade Pupil a Swimmer. 2:26.

OBERTEUFFER, Delbert. Two Problems in Health Education. 2:3.
OBJECTIVES
Aims for the Children of America. White House Conference on Child Health and Protection. 3:22.
Objectives of Preventive and Corrective Physical Education. (Committee Report.) 4:11; 5:23.
Objectives of Physical Education. J. B. Edmonson. 5:5.
The Seven Cardinal Principles and Physical Education. James E. Rogers. 1:19.
Report of the Committee on Professional Objectives. Ten Cardinal Points in the Platform of Health and Physical Education. J. F. Williams, Chairman. 2:19.
What Gymnastic Aims Should Be. Agnete Bertram. 5:8.
O'BRIEN, Fred J. A. and Burnett, J. H. Survey of Football Injuries in the High Schools of Massachusetts. 8:32.
ORGANIZATION. (See Administration).

PARENT-TEACHER. Games for Parent-Teacher Associations. W. G. Robinson. 3:28.
PHILOSOPHY. The Philosophy of Physical Education. George B. Watson. 7:3.
PHYSICAL EDUCATION. (See also Objectives, Programs, Teaching, etc.)
Applying Academic Teaching Techniques to Physical Education. Elizabeth Andrews and Elise Nelsen. 5:30.
Are Games Enough? Mabel B. Davies. 7:23.
Current Educational Problems in Relation to Physical Education. Elizabeth Halsey. 2:12
The Elementary Teacher as a Physical Educator. H. G. Danford. 1:3.
Grand Rapids Program for Health, Physical Education, and Recreation. Leslie A. Butler. 7:16.

Health Education and Its Relation to Physical Education. C. E. Turner. 6:3.
Industrial and Educational Changes Affect Physical Education. Perry L. Davis. 2:15.
Integrating Physical Education. Nellie Lee Holt. 5:3.
Mental Attitudes in Physical Education. Charles C. Cowell. 3:14.
The Philosophy of Physical Education. Goodwin B. Watson. 7:3.
Physical and Health Education in Special Classes. History, Problems, and Special Methods. W. Herbert Grigson. 3:3; 4:15; 9:26; 10:27.
The Seven Cardinal Principles and Physical Education. James E. Rogers. 1:19.
Standards in School Health and Physical Education. Clifford Lee Brownell. 3:8.
Ten Cardinal Points in the Platform of Health and Physical Education. (Committee Report). 2:19.
Trends in Physical Education. James Edward Rogers. 8:18.
Twenty-one Milestones. Some High Spots of the Past Year in Physical Education. James E. Rogers. 6:10.

PHYSICAL EXAMINATIONS. Men Whom I Have Not Helped in the Gymnasium. C. D. Giauque. 8:38.

PHYSIOLOGY
Does Exercise Modify Gastric Secretion? Arthur H. Steinhaus. 2:42.
The Effect of Exercise on Stomach Motility. Arthur H. Steinhaus. 1:40.
The Heart, Minute-Volume. Arthur H. Steinhaus. 3:38.
The Heart Size—During Exercise. Arthur H. Steinhaus. 8:40.
The Heart Size—Effects of Training. Arthur H. Steinhaus. 10:42.
The Heart Size—Immediately After Exercise. Arthur H. Steinhaus. 9:40.
Metabolism of Exercise—A Measure of Skill. Arthur H. Steinhaus. 7:36.
Metabolism of Exercise—Work Cost. Arthur H. Steinhaus. 6:40.
Tonus Reflexes and the Problem of Corrective Gymnastics. Arthur H. Steinhaus. 5:42.

PINCKNEY, Jeanie M. The Use of Modern Methods in Health Education. 10:12.

PLAY
An Interpretation of Play through Intramural Sports. H. H. House. 7:13.
The Old Time Play Party—Recreational Value of Its Singing Games. Harriet Nora Rogers. 1:34.
Play Leadership Training Courses. Norman F. Kunde. 1:13.

PLAY DAYS. The Physical Education Demonstration for Elementary Schools. Howard G. Danford. 4:20.

PLAYGROUNDS
"The Gift of Land is the Gift Eternal." Louis C. Schroeder. 8:16.
Playgrounds and Safety. Albert W. Whitney. 9:10.
Play Leadership Training Courses. Norman F. Kunde. 1:13.
Some Essentials in Playground Planning. Ernst Hermann. 6:11.

POINT SYSTEM. A Point System for Giving Marks in Physical Education. Kathryn D. McCabe. 9:11.

POSTURE
Basic Principles Underlying Posture. Mabel Elsworth Todd. 8:13.
Intramural Posture Contest. Helen G. Saum. 7:51.
Posture Expresses Personality. Charles F. Foster. 1:42.

PROGRAMS. (See also Recreation).
The Athletic Assembly Program. W. P. MacLean. 8:34.
Camping and Woodcraft as Part of the Physical Education Program. Carolyn V. Weems. 9:38.
Dancing Has Its Place in the Physical Education Program. Janice Kent. 6:20.
Grand Rapids Program for Health, Physical Education and Recreation. Leslie A. Butler. 7:16.
Organization of Boys' Physical Education Program. William R. Hillebrand. 4:44.
Physical and Health Education in Special Classes. W. H. Grigson. 3:3; 4:15; 9:26; 10:27.
Various Systems of Physical Education. Elmer Berry. 9:20.

PROUDFOOT, Lucy South. Water Games for Class, Club or Camp. 6:34.

PSYCHOLOGY
"Fear" Psychology in Swimming. I. W. Scherer. 3:24.
Mental Attitudes in Physical Education. Charles C. Cowell. 3:14.

QUIMBY, R. C. Student Instructors in Physical Education. 2:16.

RATING. (See also Grading).
Rating Health Practices. Margaret Snyder. 4:44.
Rating Suggestions for Teachers. Carl Schrader. 6:42.

RECITAL. (See Dramatics).

RECREATION. (See also Games, Play, and Playgrounds).
Grand Rapids Program for Health, Physical Education, and Recreation. Leslie A. Butler. 7:16.
The Old Time Play Party—Recreational Value of Its Singing Games. Harriet Nora Rogers. 1:34.
The Organized Recess Period. Oscar P. Loevenguth. 6:30.
Organizing a Teacher Recreation Program. Hazel D. Rex. 7:26.

REFLEXES. Tonus Reflexes and the Problem of Corrective Gymnastics. Arthur H. Steinhaus. 5:42.

REX, Hazel D. Organizing a Teacher Recreation Program. 7:26.

RHYTHMS. (See also Dancing).
The Old Time Play Party—Recreational Value of Its Singing Games. Harriet Nora Rogers. 1:34.
Values in Rhythmics. Emily White. 9:8.

RICHARDSON, Hazel A. The Recital as a Class Project. 1:25.

ROBINSON, W. G. Games for Parent-Teacher Associations. 3:28.

ROGERS, Harriet Nora. The Old Time Play Party—Recreational Value of Its Singing Games. 1:34.

ROGERS, J. E.
Around the Country with J. E. Rogers. 1:33; 2:40; 3:37; 4:37; 5:34; 7:38; 9:42; 10:48.
The Seven Cardinal Principles and Physical Education. 1:19.
Trends in Physical Education. 8:18.
Twenty-One Milestones—Some High Spots of the Past Year in Physical Education. 6:10.

ROGERS, Laurence T. Organic Development Through Exercise. 5:10.

ROUNSEVELLE, Phillip.
Archery Repairs. 5:26.
Archery Tournaments. 6:28.
Indoor Archery. 1:20.

ROWE, Floyd A. The 36th A.P.E.A. Convention. 6:22.

SAFETY. Playgrounds and Safety. Albert W. Whitney. 9:10.

SANDERS, E. M. Builders of Character or Teachers of Activities? 9:24.

SAUM, Helen G. Intramural Posture Contest. 7:51.

SCHERER, I. W. "Fear" Psychology in Swimming. 3:24.

SCHRADER, Carl. Rating Suggestions for Teachers. 6:42.

SCHROEDER, Louis C. "The Gift of Land is the Gift Eternal." 8:16.

SCHWENDENER, Norma. Natural Activities. 4:19.

SCHWIEG, Rhoda C. A Health Project. 5:37.

SHORT, Thelma. Fun in Finland. 10:5.

SMITH, Ann Avery. Aids to Efficient Swimming Instruction for Girls and Women. 7:32.

SMITH, Helen N. Evils of Sports for Women. 1:8.

SNYDER, Margaret. Rating Health Practices. 4:44.

SPINDLER, Evelyn. Do You Grade or Guess? 8:26.

SPORTS. (See also Archery, Athletics, Basketball, Football, Games, Hiking, Intramurals, Swimming, Women).
Simplified Canoeing Instruction. Frank Lynam. 5:12.
A Grand Finale for Freshman Hockey. Mary Isabel Caldwell. 4:28.
The Game of "Squash." Edward F. Abercrombie. 3:26.
Squash Court and Rules of the Game. Edward F. Abercrombie. 4:39.
Evils of Sports for Women. Helen N. Smith. 1:8.
Sports in Europe. S. C. Staley. 8:3.
Why Cramp Competition? Ina E. Gittings. 1:10.

SPORTSMANSHIP. Teaching Sportsmanship. C. W. Beeman. 8:42.

STAFFORD, George T. Chairman of Committee of A.P.E.A. Symposium of Preventive and Corrective Physical Education. 4:11; 5:23; 7:18; 8:22; 9:32.

STALEY, Seward C.
Hungary Develops a New Program of Physical Education. 2:7.
Sports in Europe. 8:3.

STANDARDS. (See also Objectives).
Standards in School Health and Physical Education. Clifford Lee Brownell. 3:8.

STEINHAUS, Arthur H. (See Physiology).
Physiology at the Service of Physical Education. 1:40; 2:42; 3:38; 5:42; 6:40; 7:36; 8:40; 9:40; 10:42.

STUNTS. (See Tumbling).

SUNDWALL, John. Are We Becoming Overly Health Conscious? 8:9.

SWIMMING
Aids to Efficient Swimming Instruction for Girls and Women. Ann Avery Smith. 7:32.
Every Sixth Grade Pupil a Swimmer. C. P. L. Nichols. 2:26.
Fancy Diving—a Fine Art. Franklin E. Hoar. 5:18.
"Fear" Psychology in Swimming. I. W. Scherer. 3:24.
Training in Swimming. Irwin H. Cohen. 10:24.
Water Games for Class, Club or Camp. Lucy S. Proudfoot. 6:34.

TEACHING. (See also Methods, Objectives).
Builders of Character or Teachers of Activities? E. M. Sanders. 9:24.
The Elementary Teacher as a Physical Educator. H. G. Danford. 1:3.
Play Leadership Training Courses. Norman F. Kunde. 1:13.
Rating Suggestions for Teachers. Carl Schrader. 6:42.
Simplified Canoeing Instruction. Frank Lynam. 5:12.
Some Needs in Physical Education Teacher Training. Darwin A. Hindman. 4:8.
Student Instructors in Physical Education. R. C. Quimby. 2:16.
Teaching Sportsmanship. C. W. Beeman. 8:42.
Who Shall Teach Physical Education in the Elementary Schools? K. S. Davis and M. Behrensmeyer. 5:28-29.

TECHNIQUES. Applying Academic Teaching Techniques to Physical Education. E. E. Andrews and E. D. Nelsen. 5:30.

TESTS
A Health Project. Rhoda C. Schwieg. 5:37.
Health Practice Tests. Margaret Snyder. 4:44.

THORIN, Kerstin V. Folk Dancing in Sweden. 3:11.

TODD, Mabel Elsworth. Basic Principles Underlying Posture. 8:13.

TOURNAMENTS
Archery Tournaments. Phillip Rounsevelle. 6:28.
The Ladder Tournament. Erna Driftmier. 8:36.
How to Make a Round Robin Schedule. E. Boyd Graves. 1:44.
Round Robin Scheduling. Julius Kuhnert. 5:48.

TUMBLING. Clown Tumbling Stunts. L. L. McClow. 1:36; 2:32.

TURNER, C. E. Health Education and Its Relation to Physical Education. 6:3.

UPTON, Arthur. "Eight" Point Boy or Girl. 3:40.

VIBBERTS, Charles D. and Bristow, William H. The Problem of Administering Health and Physical Education in Secondary Schools. 9:3.

WATSON, Goodwin B. The Philosophy of Physical Education. 7:3.

WEEMS, Carolyn V. Camping and Woodcraft as Part of the Physical Education Program. 9:38.

WHITE, Emily. Values in Rhythmics. 9:8.

WHITE HOUSE CONFERENCE
The Children's Charter. 3:22.
White House Conference on Child Health and Protection. 3:21.

WHITNEY, Albert W. Playgrounds and Safety. 9:10.

WIGGINS, B. E. High School Intramural Programs—Are They Worthwhile? 1:22.

WILLIAMS, J. F. A Preliminary Report of the Committee on Professional Objectives. Ten Cardinal Points in the Platform of Health and Physical Education. 2:19.

WILLOUGHBY, David P. How Much Faster Can Sprinters Travel? 9:34.

WOMEN
Aids to Efficient Swimming Instruction for Girls and Women. 7:32.
Evils of Sports for Women. Helen N. Smith. 1:8.
High School Intramural Programs—Are They Worthwhile? B. E. Wiggins. 1:22.
An Intramural Organization for Girls. Grace E. Jones. 8:29.
The Ladder Tournament. Erna Driftmier. 8:36.
Why Cramp Competition? Ina E. Gittings. 1:10.
In Answer to "Why Cramp Competition?" Grace B. Daviess and Anne F. Hodgkins. 3:29.
Outline for Girls' Basketball. Grace Hartley. 10:36.

WUERFEL, Theodore. An International Laboratory. 9:14.

WYMAN, Mary May. Definite Health Education Approaches. 9:22.

YOST, Fielding H. The Place of Varsity Athletics in a Program of "Athletics for All." 6:6.

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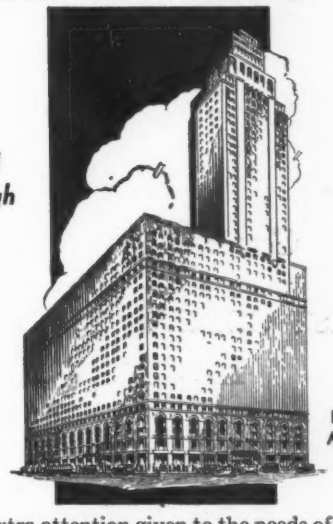

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